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No. 481] NEW DELHI, WEDNESDAY SEPTEMBER 15, 1971/BHADRA 24, 1893

स भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि वह अलग संकलन के रूप में रखा जा सके।

Separate paging is given to this Part in order that it may be filed
as a separate compilation

MINISTRY OF RAILWAYS

(Railway Board)

RESOLUTION*New Delhi, the 3rd May 1971*

S.O. 3508.—In continuation of Notification No. E(O) II-68API/2-Pt.A dated 22nd March, 1968, published in Part II, Section 3, Sub-section (ii) of the Government of India Gazette Extraordinary dated the 22nd March, 1968, the Government of India have received the Report submitted by the Commission of Inquiry under the Chairmanship of Shri K. R. Gopivallabha Iyengar, a Judge of the Mysore High Court, on the causes of collision between No. 208 Down Poona-Bangalore Deccan Express and No. 215-Up Birur-Hubli Passenger at Yalvigi station of the Southern Railway on 19th March, 1968 and hereby publish it for general information. The Government have accepted the findings and, after due consideration, taken appropriate action on the recommendations at items No. 3 to 29 and 31 and 32 of the summary of findings, observations, and recommendations given in chapter IX of the Report.

CHAPTER I

INTRODUCTION

Brief Details of Accident

1.1.1. No. 215 Up Birur-Hubli Passenger was received at 21.51 hrs. on 19th March 1968 on the main line (platform line) of Yalvigi station, on the Hubli-Harihar Metre Gauge section of the Mysore Division of the Southern Railway, and detained to allow No. 208 Down Poona-Bangalore Deccan Express to pass through. At about 22.35 hrs., No. 208 Down Express was admitted on the main line of Yalvigi station and collided head-on with No. 215 Up Passenger.

1.1.2. As a result of the collision, there was a heavy loss of life and considerable damage to the rolling stock and permanent way.

Appointment of the Commission of Inquiry and Notification Issued by the Central Government

1.2. The Central Government, in exercise of the powers conferred by Section 3 of the Commissions of Inquiry Act, 1952, (LX of 1952), appointed a Commission of Inquiry to inquire into the causes of the collision under the Ministry of Railways (Railway Board's) Notification No. E(O)II-68-AP1/2-Pt A dated 22nd March 1968 reproduced below:—

“NOTIFICATION

Whereas the Central Government is of opinion that it is necessary to appoint a Commission of Inquiry for the purpose of making an inquiry into the causes of the collision between No. 208 Down Poona-Bangalore Deccan Express and 215 Up Birur-Hubli Passenger trains at 22.35 hours on 19th March 1968 at Yalvigi station on the Harihar-Hubli metre gauge section of Southern Railway.

Now, therefore, in exercise of the powers conferred by Section 3 of the Commission of Inquiry Act 1952 (60 of 1952), the Central Government hereby appoints a Commission of Inquiry consisting of—

- (i) Justice K. R. Gopivallabha Iyengar, a Judge of the Mysore High Court—Chairman.
- (ii) Shri B. K. P. Sinha, M.P.—Member
- (iii) Shri H. D. Awasty, Retired General Manager of Indian Government Railways.—Member.

2. The said Commission shall—

- (a) make an inquiry into the causes of the said accident and for that purpose take such evidence as may be necessary;
- (b) state its findings as to causes of the said accident and as to the person or persons, if any, responsible therefore; and
- (c) suggest safeguards against similar accidents in future.

3. The said Commission shall submit its report to the Central Government within a period of one month from the date on which it commences its inquiry.

(Sd.) C. S. PARAMESWARAN,
Secretary, Railway Board.”

Further Notification issued by the Central Government

1.3. By virtue of the powers conferred on the Central Government by Section 5 of the Commissions of Inquiry Act, 1952, (LX of 1952), certain specified provisions of the Act were made applicable to the Commission of Inquiry under the Ministry of Railways (Railway Board's) Notification No. E(O)II-68-AP1/2-Pt.B dated 22nd March 1968 reproduced below:

"NOTIFICATION

In exercise of the powers conferred by Section 5 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Central Government hereby directs that all the provisions of sub-section (2), Sub-section (3) and sub-section (5) of the said Section shall apply to Commission of Inquiry appointed by the Central Government by Notification of the Government of India in the Ministry of Railways (Railway Board) No. E(O)II-68-AP1/2-Pt.A, dated 22nd March 1968, Extraordinary issue.

(Sd.) C. S. PARAMESWARAN,
Secretary, Railway Board."

Modification of first Notification dated 22nd March, 1968

1.4. In the Ministry of Railways (Railway Board's) Notification No. E(O)II-68-AP1/2 dated 10th May 1968, Para 3 of the first Notification dated 22nd March 1968 was modified as under:—

"NOTIFICATION

In modification of Para 3 of the Ministry of Railways (Railway Board's) Notification No. E(O)II-68-API/2-PT.A., dated 22nd March 1968, the Central Government have decided that the Commission of Inquiry shall submit its report to them within a period of three months from the date of commencement of the inquiry.

(Sd.) C. S. PARAMESWARAN,
Secretary, Railway Board."

Issue of Public Notification**A**

1.5. The Commission, at the outset, issued a public notification on 28th March 1968 inviting members of the public, having knowledge of the accident and matters connected therewith or who wished to take part in the inquiry or give evidence before the Commission, to send their names, addresses, statements and suggestions, if any, with affidavits in support, where possible. It was indicated that the inquiry would commence at 11 A.M. on 8th April 1968 in Court Hall No. 10, Old Public Offices (Attara Kutcheri), Bangalore, and would go on from day to day. The notification was given wide publicity in the News-papers published at Bangalore, Hubli, Madras, Bombay, Madurai and Vijayawada.

Notice issued to and statement of facts filed by Southern Railway; Erection of working model of Yalvigi station

1.6. In response to the notice issued to the Southern Railway Administration, under Rule 2(1) (a) of the Central Commissions of Inquiry (Procedure) Rules, 1960, the Railway filed a statement of facts supported by an affidavit on 6th April 1968. This formed the basis of the inquiry which commenced on 8th April 1968. The Southern Railway, in addition, prepared and erected a working model of Yalvigi station in the corridor

behind Court Hall No. 10 indicating the signalling, interlocking and block working arrangements at the station. In addition, a white print to scale showing the station yard at Yalvigi and details of the accident, including disposition of the engines and coaches involved in the collision, was exhibited in Court Hall No. 10 throughout the inquiry for the benefit of the counsels and witnesses.

Preliminary visit of the Commission to site of Accident on 1st April 1968

1.7. Before commencing the inquiry, the Commission made a preliminary inspection of the site of accident at Yalvigi station on 1st April 1968 to get acquainted with the conditions of working and the procedure prescribed for the reception and despatch of trains at Yalvigi. The safeguards provided by the standard of signalling and interlocking in use at the station were explained in detail by the Administration. The inspection was made not only during day time but also at night in conditions of visibility more or less similar to those that prevailed at the time of the accident. The observations made by the Commission are summarised in Chapter IV.

Notice issued to Eight Railway Employees under rules 4 and 5 of Central Commissions of Inquiry (Procedure) Rules, 1960.

1.8. To gather adequate and reliable information, the Commission decided to examine witnesses and record their evidence on oath. The inquiry commenced at 11 hrs., on 8th April 1968 in Court Hall No. 10 of the High Court Buildings, Bangalore, as notified. In the light of the statement of facts, submitted by the Railway Administration, the Commission considered it necessary to inquire into the conduct of certain railway employees and individual notices were issued to the following staff under Rules 4 and 5 of the Central Commissions of Inquiry (Procedure) Rules, 1960, giving them an opportunity to be heard in person and be represented by counsels before the Commission and advising them to file their statements supported by affidavits:

- (1) D. V. Patil, Assistant Station Master, (ASM), Yalvigi.
- (2) Siddappa Hanumappa, Pointsman, Yalvigi.
- (3) Hanumantha Chikkappa, Gateman, Yalvigi.
- (4) Basavanna Gorawar, Gateman, Yalvigi.
- (5) Durga, Pointsman, Yalvigi.
- (6) H.K.T. Iyengar, Guard No. 208 Express.
- (7) S. B. Harnahalli, Driver of No. 215 Passenger.
- (8) S. Viswanath, Driver of No. 208 Express.

The notice read as under:

"It may be necessary to inquire into your conduct in connection with the inquiry into the collision between No. 208 Down Poona-Bangalore Deccan Express and No. 215 Up Birur-Hubli Passenger, which took place at Yalvigi on 19th March 1968. Under Rule 4 of the Central Commissions of Inquiry (Procedure Rules) 1960, you are hereby given an opportunity of being heard in the inquiry and to produce evidence in your defence. Under Rule 5 of the said Rules, you may be represented before the Commission by a legal practitioner, or, with the consent of the Commission, by any other person. Your Counsel

may also cross-examine witnesses other than those produced on your behalf. You may also address the Commission.

You may, therefore, avail of this opportunity to file your statement of facts with an affidavit in support before 11 A.M. on 15th April 1968. Your counsel may also have the opportunity of cross-examining the witnesses already examined by the Commission on or after 15th April 1968, for which purpose the witnesses concerned will be recalled."

Where the employees were represented by their counsels, the notice was read out to them in the Court Hall. In the case of others, the notice was sent through registered post and their acknowledgments obtained. The notice, in such cases, was read out, as and when counsels appeared on their behalf before the Commission.

Representation by advocates.

1.9. The Southern Railway and individual railway employees were represented by the counsels indicated below with effect from the dates shown in juxta-position:

Party	Names of Advocates	Date from which appeared before Commission
(1) Southern Railway	Sri G. R. Ethirajulu Naidu assisted by Sri R. S. Mahendra.	8-4-68
(2) Amicus Curiae	Sri V. L. Narasimha Murthy	8-4-68
(3) D.V. Patil, ASM.	Sri V. Ramaswamy	8-4-68
(4) Siddappa Hanumappa, Pointsman.	Sriyuts K. Jagannatha Shetty and N. Santhosh Hegde	8-4-68
(5) Hanumantha Chikkappa, Gateman	Sri L. G. Havanur	8-4-68
(6) Basavanna Gorawar, Gateman	Sri S. M. Yahya	8-4-68
(7) H.K.T. Iyengar, Guard.	Sri S. B. Swethadri	10-4-68
(8) S. B. Harnahalli, Driver of No. 215 Passenger.	Sri K.S. Savanur	15-4-68
(9) Durga, Pointsman	Sri B. V. Kumbara Gowda	22-4-68
(10) S. Viswanath, Driver of No. 208 Express.	Shri A. T. Vijayarangam	9-5-68

Sri V. L. Narasimha Murthy was permitted by the Commission to participate in the proceedings and cross-examine the witnesses.

Filing of statements of case and affidavits by railway employees.

1.10. The railway employees, whose names are noted hereunder, filed their statements supported by affidavits:

<i>Name of railway employee</i>	<i>Date of submission of statement with affidavit</i>
(1) D. V. Patil	18-4-68
(2) Siddappa Hanumappa	18-4-68
(3) H. K. T. Iyengar	18-4-68
(4) S. B. Harnahalli	18-4-68
(5) Durga	25-4-68
(6) S. Viswanath	15-5-68

Hanumantha Chikkappa and Basavanna Gorawar did not choose to file any statement.

Inquiry by Additional Commissioner of Railway Safety, Bangalore.

1.11. The Additional Commissioner of Railway Safety, Bangalore, had issued a press notification that his statutory enquiry into the accident would commence at Hubli at 10 hours on 23rd March 1968. In view of the appointment of the Commission of Inquiry, he did not visit the site of accident or held any enquiry.

Investigation by Railway Police.

1.12. On a complaint filed by S. B. Harnahalli, Driver of No. 215 Passenger, D. V. Patil, ASM, Yalvigi and Siddappa Hanumappa, Pointsman, Yalvigi, were arrested by the Railway Police Inspector, Hubli, on 21st March 1968, and produced before the Judicial Magistrate, First Class, First Court, Hubli, who remanded them to judicial custody. They were subsequently released on conditional bail on 28th March 1968 and 30th March 1968 respectively. On the appointment of the Commission of Inquiry, the police suspended further investigation.

Examination of witnesses.

1.13. The Commission examined 44 witnesses and concluded recording of oral evidence on 28th May 1968. Members of the public, who had written to the Commission in response to the notification dated 28th March 1968 or otherwise, claiming personal knowledge of circumstances relating to the accident, some who were passengers on either of the two trains involved in the collision, and two who came to the station soon after the accident, in all nine witnesses were summoned and their testimony was recorded.

Filing of additional statements by railway

1.14. The Southern Railway were asked from time to time to file additional statements on points of issues which came up before the Commission. These statements are taken up for consideration at the appropriate stage in later chapters.

CHAPTER II

TOPOGRAPHY, DESCRIPTION AND WORKING OF YALVIGI
RAILWAY STATION**Location of Yalvigi Station and Layout**

2.1. Yalvigi is a roadside crossing station on Hubli-Harihar, single line, Metre Gauge section of Mysore Division of Southern Railway, 46.64 Km. from Hubli, 83.72 Km. from Harihar and 422.36 Km. from Bangalore City on the Bangalore City—Poona trunk route. The kilometrage is reckoned from Bangalore City and increases from Harihar to Hubli. The line was constructed in the year 1886. Yalvigi is one out of eleven crossing stations on this section, all with two running lines, the main and the loop. Gudgeri is the next station on the Hubli side of Yalvigi at a distance of 11.36 Km. and Savanur is the next station on the Harihar side of Yalvigi 8.72 Km. away. Road 1, the main line at Yalvigi, is also the platform line, with a platform 0.33 metre high from rail level. Road 2 is the loop line with no platform. There is a through goods siding, as well as a dead end siding taking off Road No. 2, the loop line. These sidings are protected by Scotch Blocks. Indicators working in conjunction with Scotch Blocks have been provided. Yalvigi station is electrified.

Section control, up and down directions, maximum permissible speed and speed through station

2.2. The 130.36 Km. long Hubli-Harihar section is controlled from Mysore, the section control circuit being from Birur to Hubli. The trains from Hubli to Harihar/Bangalore City are called down trains and the trains from Bangalore City/Harihar towards Hubli are called up trains. The down trains have even numbers and the up trains odd numbers. The maximum permissible speed on the section is 75 Km.p.h. i.e., the maximum allowed on the Metre Gauge on Indian Railways but the speed over the facing points and through the station on the main line at the eleven crossing stations, including Yalvigi, is restricted to 50 Km. p.h. on account of the standard of signalling provided. At Yalvigi, there are points at both ends of the station, where the loop line takes off the main line. The Gudgeri and outermost points (T-1) are called down outermost points and are facing for down trains and trailing for up trains; the Savanur and outermost points (T5) are called up outermost points and are facing for up trains and trailing for down trains.

Alignment.

2.3. The alignment of the track generally runs from north to south. The approach from Gudgeri end is straight from Km. 424/15-14 to Km. 423/7-6 just inside the Down Outer (Km. 423/9-8) of Yalvigi, i.e., for a distance of about 1.6 Km. followed by a right hand curve of 609.6 metres radius (curve No. 19) for a length of 435 metres from Km. 423/7-6 to Km. 422/14-13 between the Down Outer and the Down Home signals. This curve is followed by a straight track for 305 metres upto Km. 422/10-9, a point 33 metres inside the down outermost facing points. Thereafter, the station is on a left hand curve of 609.6 metres radius (curve No. 18) upto Km. 422/2-1 for a distance of 537 metres almost upto the up outermost points. This is followed by a straight beyond the up outermost points. The platform also takes a curved shape consequent on the main line and the loop line being on a left hand curve. The station building is situated on the outside of this curve. (Right or left hand curves

in this report are denoted with reference to the direction of movement of No. 208 Express from Hubli side.) The height of tank from the Down Outer signal of Yalvigi varies from 3 metres to 2 metres until it reaches ground level near the Down Home signals.

Altitude of Gudgeri and Yalvigi and approach gradient.

2.4. The ruling gradient on Harihar—Hubli section is 1 in 100. The altitude of Gudgeri is 685.19 metres and that of Yalvigi 617.22 metres; Yalvigi station is thus 67.97 metres lower than Gudgeri. The line from Gudgeri to Yalvigi gently rises for a distance of just over 3 Km. to an altitude of 689.46 metres at Km. 431/2-1. It is level for a short stretch upto Km. 430/13 and thereafter there is a continuous falling gradient of 1 in 100 almost upto Yalvigi station, except for one short stretch of level for about 0.5 Km. from Km. 427/5 to Km. 426/12 followed by a falling gradient of 1 in 178 for about 0.5 Km. from Km. 426/12 to Km. 426/5 almost in the middle of the long stretch of down gradient. The falling gradient ends 137 metres outside the down outermost points of Yalvigi. There is thus a continuous down gradient of 1 in 100 for about 7.5 Km. on the Gudgeri—Yalvigi block section in two stretches excluding the short patches of level and 1 in 178 grades in between the two stretches. The gradient for up trains from Yalvigi to Gudgeri is unfavourable as the trains have to negotiate a continuous up gradient of 1 in 100. Certain safety precautions have, therefore, been specified in the Station working Instructions of Yalvigi station with regard to the despatch and clearance of up trains from Yalvigi to Gudgeri.

Gradient of yard at Yalvigi: Description of permanent way.

2.5. Yalvigi station is on a level grade from 137 metres outside the down outermost points to 42.37 metres outside the up outermost points from where the gradient again falls at 1 in 100 towards Savanur. In view of this, certain precautions to be observed during shunting operations at the Savanur end of the station have been incorporated in the Station Working Instructions. The permanent way consists of 60 lbs R rails on steel through sleepers fully stone ballasted.

Classification of station, block working and standard of signalling.

2.6. Yalvigi is a class B station, with two running lines, which means that permission to approach can be given for a train from Gudgeri or Savanur or one from each direction before the line has been cleared for the reception of the train/trains within the Station Section i.e., the portion of the running lines between the Up and Down Home signals. Neale's Ball Token Instruments are installed. The Down Home signals mark the end of the Gudgeri—Yalvigi Block Section and the UP Home signals the end of the Savanur—Yalvigi Block Section. The station is equipped with Standard I Mechanical Lower Quadrant Semaphore Signalling in accordance with para 171 of the Indian Railways Signal Engineering Manual. This permits a speed of 50 Km. p.h. over the outermost facing points and through the station on the main line i.e. Road 1.

Description of signalling installation: Numbering of points and normal setting.

2.7. The signalling and interlocking installation comprises interlocked market Home signals on either side and Keylocked points. Points T-1

and T—5 are the outermost points on the Hubli and Harihar sides respectively. Points T—2, T—3 and T—4 take off the loop line i.e., Road 2 and give access to the through goods and the dead end sidings.

Home signals: Ground lever frame: Key C.

2.8. Two armed bracket Home signals, provided near the outermost facing points T—1 and T—5 are worked from a Ground Lever Frame with four levers, located on the platform near the Station Master's office. The four levers, numbered from the left to right (facing the lines), work:

Lever No. 1: Down Main Home signal.

Lever No. 2: Down Loop Home signal.

Lever No. 3: Up Loop Home signal.

Lever No. 4: Up main Home signal.

The Ground Lever Frame is controlled by key C, which when removed, locks all the levers in their normal position i.e., with the respective signals in the 'ON' or danger position. Key C, when not in use, is kept in the custody of the SM (Station Master) on duty and is secured in a glass-fronted key lock-up box, which is padlocked, the key of which is kept in the personal custody of the SM on duty. The interlocking of the Ground Lever Frame is such that only one lever can be pulled over at a time, thus permitting reception of only one train at a time and preventing conflicting movements. As a measure of additional precaution, the levers of the Ground Lever Frame are provided with separate padlocking arrangements to hold the levers in their normal position. This arrangement prevents release of the catch handle and consequently the lever cannot be pulled over. The keys of the padlocks of the four levers are provided with individual metallic tags bearing an inscription of the levers to which they pertain. These keys are also kept in the custody of the SM on duty and are secured in the glass-fronted key lock-up box. The appropriate key is taken out and used to suit the intended reception of a train. Locks are provided on the stems of the Home signal posts for locking the respective Home signals at 'ON' or danger position. These are released by the keys of the outermost facing points T1 and T5 as described in the succeeding two paras.

Working of points T—1: Keys B & Q.

2.9. Points T—1 are controlled by means of a hand plunger type facing points lock with double key arrangements. The two keys are B and Q. Key B can be taken out of the facing points lock only when the points T—1 are set and locked for the main line. In this position, key Q remains locked and cannot be extracted. Key B is normally in the custody of the SM on duty and is secured in the glass-fronted key lock-up box. To set the points for the loop line, key B is first inserted in the facing points lock at T—1 and turned; then the hand plunger is operated to unlock the points, which releases the lever operating the points; the points are reversed and the hand plunger operated again to lock the points. In this position, key Q can be extracted from the facing points lock, key B remaining locked therein. If the points T—1 are set and locked for the main line, key B, which is free, can be inserted in the appropriate key hole in the stem of the Down Home signals and turned, thus releasing the Down Main Home signal for the reception of a down train on the main line. The pulling of lever No. 1 in the Ground Lever Frame will then lower the Down Main Home signal. If the points T—1 are set and

locked for the loop line, key Q extracted from the facing points lock can be inserted in the appropriate key hole in the stem of the Down Home signals and turned, thus releasing the Down Loop Home signal. The pulling of lever No. 2 in the Ground Lever Frame will then lower the Down Loop Home signal. At any one time either key B or key Q will be out of the facing points lock at points T—1. The keys B and Q are not inter-changeable and cannot be used to unlock the wrong Home signal. It is not possible to insert key B in the hole for key Q in the stem of the Down Home signals and unlock the Down Loop Home signal or *vice versa*. Only the appropriate Home signal, depending on whether the points T—1 are set and locked for the main line or loop line can be released and taken 'off'.

Working of points T—5: Keys A and P.

2.10. The points T—5 and the Up Home signals are operated in a similar manner, using keys A and P. Key A unlocks the Up Main Home signal and key P the Up Loop Home signal. Key A, when not in use, is kept in the custody of the SM on duty and is secured in the glass-fronted key lock-up box. Possession of this key is an assurance to the SM that the points T—5 are set and locked for the main line. Key A is similarly used in the facing points lock at points T—5 for setting and locking the route for the loop line thus releasing key P for unlocking the Up Loop Home signal. Keys A and P are not interchangeable and cannot be used to unlock the wrong Home signal.

Working of outer signals.

2.11. The Up and Down Outer signals are operated by pulling levers at the respective Home signals. The Home and Outer signals are so inter-locked through a disengager mechanism that, unless one of the Home signals, either for the main or the loop is lowered, the Outer cannot be lowered. The lowering of either Home signal from the Ground Lever Frame on the platform enables the Pointsman at the outermost facing points to lower the corresponding Outer signal. The transmission to the Outer signal through the disengager mechanism is so adjusted as to enable the Outer signal to return automatically to 'ON', if it is not already in that position, when the Home signal is restored to 'ON'. This arrangement gives the SM complete control over the Outer signals. In an emergency, the SM can restore both the Home and Outer signals to 'ON' by just putting back the Home signal lever in the Ground Lever Frame.

Custody of Keys.

2.12. Keys A, B, C, P and Q are not interchangeable and this is ensured in the manufacturing process adopted for locks and keys. These letters are inscribed on the respective keys for purposes of easy identification. When not in use, keys A, B and C will be in the custody of the SM on duty, who has to secure them in the glass-fronted key lock-up box, along with the keys of the padlocks used on the four levers on the Ground Lever Frame. The key of the padlock used on the glass-fronted key lock-up box is to be retained in the personal custody of the SM on duty. The key lock-up box is not to be handled by anyone except the SM on duty. The arrangements thus enable the SM on duty to have personal and complete control over all the reception signals at the station. The keys of the block instruments are to be similarly retained in the personal custody of the SM on duty, thus preventing unauthorised interference with essential safety equipment at the station.

Operation of siding points T-2, T-3 and T-4.

2.13. Siding points T-2, T-3 and T-4 are controlled by key C, which is used to unlock any one of these points at a time. By a succession key arrangement, the appropriate Sootch Block is also released in turn thus enabling shunting movements to and from the relevant siding. When key C is used to unlock any one of the siding points, the Ground Lever Frame is locked up, preventing reception signals being taken off from either direction. Similarly, when key C is in the custody of the SM on duty or is used to release the Ground Lever Frame for the reception of a train, no movement to and from the sidings can take place.

Interlocked 'A' class level crossing No. 261 at Km. 423/2 between Down outer and home signals of Yalvigi

2.14. Interlocked A class level crossing No. 261 is situated at Km. 423/2 between the Down Outer and Down Home signals of Yalvigi station on Gudgeri side. This level crossing, which is under the control of the SM, is 405 metres from the Down Outer and 424.90 metres from the Down Home signals. The level crossing gates are provided with keys, which, when extracted from the gates, after securing them against road traffic, keep the gates locked until they are re-opened by using the keys. These keys are then used for releasing a 2-lever ground frame adjacent to the Gate Lodge. Lever No. 1 operates the Up Gate signal situated 251 metres from the level crossing towards the station, thus permitting up trains from the station to pass the level crossing. Lever No. 2, controls the Down Outer signal through a disengager mechanism. Unless the level crossing is closed against road traffic, keys extracted and inserted in the lever frame and lever No. 2 pulled, the Outer signal cannot be lowered by the Pointsman deputed to man the down outermost facing points T-1. The interlocking in the lever frame near the Gate Lodge permits only one lever being pulled at a time. Magneto telephone communication is provided between the SM's office and the Gate Lodge. Before taking off signals for the reception of a down train, or before authorising departure of an up train, the SM conveys instructions on the phone to the Gateman, who closes the gates and acts according to the instructions of the SM. The gate is manned round the clock by two gatemen on 12 hours shift each.

Uninterlocked Level Crossing No. 260 at Km. 421/12-13 with chains between Up Outer and Up Home Signals of Yalvigi.

2.15. Level crossing No. 260 with chains instead of gates is situated at Km. 421/12-13 between the Up Outer and the Up Home signals of Yalvigi on Savanur side. This level crossing is 322.47 metres from the Up Outer signal and 304.90 metres from the Up Home signals. This is manned by a Gateman during day time only. For closing this level crossing the Gateman is suitably instructed and sent from the station by the SM on duty. The Pointsman on duty at the up outermost points exchanges "All Ready" signal with the Gateman before exchanging signal with the SM. At night, the chains are permanently locked against road traffic and are opened for passage of road traffic only when it is safe to do so by the Pointsman on duty at the up Outermost facing points. This level crossing has no phone communication.

Provision of Mechanical Detectors for Points T-1 and T-5

2.16. Mechanical detectors have been provided at the points T-1 and T-5 as part of the interlocking equipment, to prove that switches of the points are correctly housed and that the points are correctly set for the

route for which the Home signal is to be operated. The wire transmission from the Ground Lever Frame to the respective Home signals passes through these detectors at either end. If the switches of the points are not housed properly or if the points are incorrectly set for a route other than that for which the Home signal is to be taken off, the detector physically prevents the wire being pulled through i.e., the pull is not transmitted beyond the detector to the signal.

Provision of Point indicators for points T-1 and T-5

2.17. Point indicators working mechanically in conjunction with the points T-1 and T-5 have been provided. These show white targets by day and white light by night in both directions, when these points are set for the main line, and knife edges by day and green light by night in both directions, when they are set for the loop line. They thus indicate to the SM as well as the Driver the line for which the points are set. In accordance with Southern Railway Subsidiary Rule (S.R.) No. 14(iii)(b) (3)(ii), it is not obligatory for the SM on duty at a station like Yalvigi, equipped with Standard I Lower Quadrant Semaphore Signalling, to observe the point indicators during reception of trains, as the lowering of the correct Home signal, which he has to verify, automatically proves the correct setting of the route. However, for the despatch of trains, the SM is obliged to verify the correct setting of points by observing the point indicators, as no separate despatch signals are provided.

Line Blocked Collars

2.18. As an additional precaution to ensure that the Home signal pertaining to a line on which a train, engine or vehicle is left standing or which is otherwise obstructed is not taken off inadvertently, two 'Line Blocked' collars have been supplied to Yalvigi. If the main line is obstructed, the two 'Line Blocked' collars are to be used on levers Nos. 1 and 4 of the Ground Lever Frame pertaining to the Down and Up Main Home signals. If the loop line is obstructed, the 'Line Blocked' collars are to be used on levers Nos. 2 and 3 of the Ground Lever Frame pertaining to the Down and Up Loop Home signals. The Southern Railway S.R. 52(iv) requires that these collars should be placed on the relevant lever handles to prevent the catch handles being released and the levers being pulled. These collars serve as a visual warning to the SM/Pointsman on duty that the levers pertain to the line, which is occupied or obstructed.

Lock-out Post

2.19. As the platform and the station building are situated on the outside of a curve at Yalvigi, the outermost facing points, point indicators and the Home signals particularly on the Gudgeri side, are not visible from the platform, whenever a train is standing on the main line or the loop line. As an aid to the SM on duty to observe the point indicators and signals and exchange "All Ready" signals with the Pointsman on duty at both ends, when a train is standing on either of the running lines a raised Look-out Post, 3 metres high, has been put up at a suitable location on the platform, 21.4 metres away from the SM's office on the Gudgeri side.

Complete Control of Station Master over Points and Signals

2.20. The SM exercises complete control over the reception signals at Yalvigi through key C, which, when extracted from the Ground Lever Frame located in close proximity to his office and secured in his custody, locks up the Ground Lever Frame and prevents any of the Home signals

being taken off and consequently the relevant Outer also on account of the interlocking between the Home and Outer signals. Co-ordination of the position of the points, which determines the line on which the train is to be received, with the relevant signals is arranged through non-interchangeable keys A, P, B and Q, which are either in his custody or are locked in the points or signals to which they relate. Since these keys cannot be extracted from the points or signals in any position other than that which interlocking permits, the SM is in complete control of reception and despatch of trains. In an emergency, the SM is also in a position to throw back the Home and Outer signals simultaneously to the 'ON' position. Provision of padlocks for the individual levers of the Ground Lever Frame, the keys of which are kept in his custody, gives him an additional means of exercising his control indirectly. The lowering of the Home signal is done under the specific instructions of the SM by pulling the appropriate lever of the Ground Lever Frame but the Home signal for a particular line will not come off, unless the facing points are correctly set and locked for that line. Even the movement to and from the sidings is controlled directly by the SM through key C, which has to be used for unlocking the points leading to the sidings.

"All Ready" Signals

2.21. Southern Railway S.R. 63(i) gives the description of the "All Ready" signal as under:—

"The 'All Ready' signal is a signal indicating that all is ready for the train movement in connection with which it is given. It is given, by day, by smartly waving a green flag, three times overhead from side to side, pausing and waving it smartly two times, vertically up and down, and, by night, by waving a green light in the same manner."

Exchange of "All Ready" signal is a basic and fundamental requirement in train passing duties at stations like Yalvigi so as to ensure safety in operation. The circumstances in which "All Ready" signals are to be exchanged are specified in the Station Working Instructions of Yalvigi station.

Station Working Instructions of Yalvigi

2.22. Detailed instructions for working of Yalvigi Station, as per Southern Railway S.R. 37(v) are incorporated in the Station Working Instructions (Metre Gauge) No. 64 of 3rd December 1963 as amended by Correction Memo No. 1 of 11th February 1964 and Correction Memo No. 2 of 15th February 1965. These instructions have been issued by Hubli Division prior to the formation of the South Central Railway on 2nd October 1966, when the Harihar—Hubli Section, exclusive of Harihar, was attached to that Division. Under the Southern Railway S.R. 175, the Station Working Instructions have to be read and understood by the Class III staff and have to be read over, translated and explained to the Class IV staff of Yalvigi station dealing with train passing duties. Necessary declarations have been obtained from all such staff in the Declaration Register maintained for the purpose of Yalvigi station.

Complement of Operating and Commercial Staff at Yalvigi and their Classification

2.23. Yalvigi has the following strength of staff to attend to Operating and Commercial work:—

Class III Staff

- (i) 1 Station Master.
- (ii) 2 Assistant Station Masters.
- (iii) 1 Rest-giving SM (For Yalvigi and five other stations as per roster).
- (iv) Exclusive Commercial Staff: Nil.

Class IV Staff

- (i) 6 Pointsmen and 1 Rest-giving Pointsman.
- (ii) 3 Gatemen and 1 Rest-giving Gateman (Rest-giving Gateman attends other stations also).
- (iii) 1 Sweeper.

The SM and the ASMs (Assistant Station Masters) are classified as "Continuous" workers and their rostered hours of duty range from 8 to 9 hrs. per day in conformity with the Hours of Employment Regulations. The Class IV staff are classified as "Essentially Intermittent" workers and their rostered hours of duty are for 12 hrs. per day. Weekly rest is availed of by each member of the staff according to roster utilising the services of the Rest-giving SM, Rest-giving ASM, Rest-giving Pointsman and Rest-giving Gateman etc. The classification is based on the nature of work required to be done by the staff holding various posts and the total work load at the station. The staff who have long periods of inaction during their daily hours of duty, the periods of inaction aggregating to 6 hrs. or more, including at least one period of inaction of not less than one hour or two periods of inaction of not less than half an hour each, are classified as "Essentially Intermittent" workers in accordance with the rules in force.

Staff on duty at Yalvigi at any one time

2.24. The following staff are on duty at Yalvigi at any one time:

- (i) One SM/ASM;
- (ii) Three Pointsmen—one for the down outermost points, one for the up outermost points and the third for middle duty to pull the Home signal lever in accordance with the SM's instructions and to attend to other duties such as handing over and picking up tokens, ringing the station bell, attending to loading and unloading of luggage and parcels, handing over caution orders to drivers, etc.;
- (iii) One Gateman on duty at the interlocked level crossing at Km. 423/2, which is provided with manage to telephone connection with the station;
- (iv) One Gateman on duty during day time only at the chained level crossing at Km. 421/12-13. (As the accident happened at night, there was no Gateman on duty at this chained level crossing); and

- (v) One Sweeper on duty during day time. He has no train passing duties.

Rosters of Class III Staff at Yalvigi

2.25. The SM is normally on duty daily from 10 to 18.30 hrs. and avails of rest on Mondays, utilising the services of the Rest-giving SM, who similarly gives rest to SMs at five other Stations viz. Kundgol, Saunshi, Gudgeri, Savanur and Karajgi and avails himself of rest on the seventh day each week. The ASMs at Yalvigi work from 07.00 to 11.00 hrs., 18.00 to 22.00 hrs. and 22.00 hrs. to 07.00 hrs. on next day. The rosters thus overlap from 10.00 to 11.00 hrs. and 8.00 hrs. to 18.30 hrs. The Rest-giving ASM with Hqrs (Headquarters) at Savanur, gives rest to the ASMs. The rosters are so adjusted that the ASMs do not have to perform night duty for more than two consecutive nights at a time. The SMs on duty at yalvigi are thus scheduled to change over at 07.00 hrs., 11.00 hrs., 18.00 hrs. and 22 hrs. daily. On 19th March 1968, however, the prescribed rosters were not followed. The SM was not available for duty and the two ASMs tacitly agreed to work on 12 hour shift, changing over at 07.00 hrs. and 19.00 hrs. Under this arrangement, D. V. Patil took over charge at 19.00 hrs. on 19th March, 1968.

Rosters of Class IV Staff at Yalvigi

2.26. The Pointsmen change over at 08.00 hrs. and 20.00 hrs. daily and their rosters are so adjusted that they do not have to be on duty on more than three consecutive nights at a time. The gatemen at the interlocked level crossing at Km. 423/2 (Gudgeri side) change over at 07.00 hrs. and 19.00 hrs. daily and their rosters are also similarly adjusted. On the evening of 19th March 1968, the following Class IV staff were scheduled to be on duty at Yalvigi:

Points T-5—Biddadi Veerabhadrapappa from 20.00 hrs..

Middle Duty—Siddappa Hanumappa from 20.00 hrs.

Points T-1—Durga from 20.00 hrs.

Level Crossing at Km. 423/2—Basavannappa Gorawar upto 19.00 hrs.
Hanumantha Chikkappa from 19.00 hrs.

General Rules 180 and 181 regarding hours of attendance for duty and absence from duty

2.27. General Rule (G.R.) 180 prescribes that every railway servant shall be in attendance for duty at such times and for such periods as may be prescribed by the Railway Administration. G.R. 181(a) specifies in addition that no railway servant shall, without the permission of his superior officer, absent himself from duty, or alter his appointed hours of attendance, or exchange duty with any other railway servant. Executive instructions also require that no railway servant may leave his Hqrs. without permission from his superior officer. No railway servant shall break off duty until properly relieved by a competent person under Section 71-F of the Indian Railways Act, 1890 (IX of 1890).

Basic provisions in general and subsidiary rules regarding reception of trains

2.28.1. G.R. 254 specifies the conditions under which permission to approach may be given at a Class B station, single line, under the Absolute

Block System in force. Relevant extract from the Rule is reproduced below:—

“Class B Stations—Single Line.

254. Conditions under which permission to approach may be given:
The line shall not be considered clear, and permission to approach shall not be given, unless—

- (a) the whole of the last preceding train has passed within the Home signal, if any, or has arrived at the place at which trains usually come to a stand,
- (b) the Home, if any, and the Outer have been put to “On”, and
- (c) the line is clear—

* * * *

(ii) to the Home signal, if there is no Shunting Board or Advanced Starter, or

* * * *

2.28.2. There are no Shunting Boards or Advanced Starters at Yalvigi station. For giving permission to approach, the line is required to be kept clear up to the relevant Home signals. Under G.R. 237(3), the adequate distance to be kept clear for granting permission to approach should be not less than 400 metres from the First Stop Signal viz., the Outer. At Yalvigi, the Down Outer is situated 828.90 metres from the Down Home signals which is, therefore, more than adequate for granting permission to approach for down trains taking into account also the adequate distance 180 metres from the outermost trailing points prescribed in G.R. 38(b) for taking off the Home Signal. The extra distance has been allowed in this case on account of the presence of the interlocked level crossing in between Down Outer and Down Home signals.

2.28.3. G.Rs. 36, 37, 38 and 39 and the S.R. thereunder cover the working of points and signals relating to reception and despatch of trains.

2.28.4. G.R. 37 is reproduced below:—

“37. Points affecting movement of train.—(a) The Station Master shall not give permission to take signals “OFF” to admit a train until—

- (i) all facing points over which the train will pass are correctly set and locked;
- (ii) all trailing points over which the train will pass are correctly set; and
- (iii) the line over which the train is to pass is clear and free from obstructions.

(b) Facing points when neither interlocked nor key locked, shall be locked for the passage of a train either by a clamp or by a through bolt locking the nose of the switch rail to the stock rail, such clamp or through bolt to be provided with a padlock by which it can be locked in position. It is not sufficient to lock the lever working the points.”

2.28.5. At Yalvigi station, which is key-locked, G.R. 37 prescribes that the SM shall not give permission to take signals off to admit a train until all facing points over which the train will pass are correctly set and

locked, all training points over which the train will pass are correctly set and the line over which the train is to pass is clear and free from obstruction. This responsibility has to be discharged personally by the SM on duty by physically verifying that the intended line is clear and free from obstruction and exchanging 'All Ready' signal with the Points-men on duty at the outermost facing and trailing points as prescribed in the Station Working Instructions.

2.28.6. It is, however, indicated in Southern Railway S.R. 37(ii) (c) that during the crossing of trains at an interlocked station the setting of the outermost trailing points, against the line on which the first train is to be received, does not constitute an obstruction for the purpose of G.R. 37. Para 6K of the Station Working Instructions pertaining to Yalvigi stipulates that, in crossing two trains at Yalvigi, the outermost trailing points for the first train should be set against the line on which it is to be received.

2.28.7. G.R. 38 specifies the precautions to be observed before the Home signal is taken off. It is indicated that on the single line the Home signal shall not be taken off unless the line is clear for an adequate distance of not less than 180 metres beyond the trailing points. Similarly, G.R. 39 prescribes the conditions under which the Outer signal can be taken off. However, at this station, the Outer is interlocked with the Home signal through the disengager mechanism at the foot of the Home signal. Consequently, the Outer signal cannot be taken off unless the relevant Home signal is also taken off. In other words, the conditions for taking off the Home signal have to be complied with for taking off the Outer signal also. The only other condition to be observed is the closing of the level crossings at Km. 423/2 and Km. 421/12-13 between the Home and the Outer signals on either side as specified earlier.

2.28.8. Southern Railway S.R. 36(i) (a) is reproduced below:—

S.R. 36(i) (a). "The staff responsible for working the signals at a station must see that the signal arm obeys the lever actuating it. The Station Master must also assure himself, either personally or by means of the Repeater where provided, in all cases, that the concerned signals, governing the movement of a train, are taken "OFF" for the train and that, normally, such signals are put back to "ON" immediately after the train has completely passed the signal."

At Yalvigi, it becomes incumbent on the Middle Duty Pointsman and the Station Master on duty to verify respectively that the signal arm obeys the lever operated in the Ground Lever Frame and that the correct signals have been taken off for the reception of any train.

Procedure for reception of 215 Up Birur-Hubli Passenger on Main Line.

2.29.1. On the day of the accident, No. 215 Birur-Hubli Passenger left Savanur at 21.40 hrs. In accordance with Para 6A of the Station Working Instructions of Yalvigi, the following procedure is required to be followed for receiving No. 215 on the main line (platform line):

- (i) The SM on duty must send a Pointsman with key 'A' instructing him to unlock the Up Main Home signal at the Harihar end of the station. As the normal setting of the points at this station is for the main line, the Pointsman should satisfy himself that the points are in the normal position, correctly set

and locked for the main line, and then insert key 'A' in the lock on the stem of the Up Main Home signal, turn and thus unlock the Up Main Home signal. He must then take his stand at the outermost facing points T-5 and exhibit a red signal towards the station. On the train approaching, the Pointsman must exchange the 'All Ready' signal with the SM after first exchanging 'All Ready' signal during day time only with the Gateman on duty at the level crossing at Km. 421/12-13.

- (ii) If everything is ready for the reception of the train, the SM after satisfying himself, in the manner specified, that the level crossing at Km. 421/12-13 is secured against road traffic and that the route for the train and the reception line are clear and free from obstruction and also after ensuring that key 'B' which controls the setting of the down outermost points at the Gudgeri end is in his possession, hand over key 'C' and the padlock key of the Up Main Home signal lever to the Middle Duty Pointsman and direct him to take off the Up Main Home signal.
- (iii) On the Up Main Home signal being taken off, the Pointsman at the up outermost facing points T-5 must take off the Outer signal and alter his red signal to green and exhibit it towards the approaching train.
- (iv) Under S.R. 36(i) (a), the SM is required to assure himself that the concerned signals, governing the movement of the train, have been correctly taken off.

2.29.2. The following is the procedure to be followed by the SM for satisfying himself that the level crossing at Km. 421/12-13 between the Up Outer and Home signals at the Harihar end has been secured against road traffic:—

- (i) The SM shall advise the Gateman, during day time, when it is necessary to padlock the chains of the level crossing against road traffic. The Gateman, after the chains are hooked, padlocked and secured against road traffic, shall exchange 'All Ready' signal with the Pointsman at points T-5, who in turn will exchange 'All Ready' signal with the SM on duty. The exchange of 'All Ready' signal with the Pointsman at Points T-5 is thus the assurance to the SM that the level crossing at Km. 421/12-13 is also secured against road traffic.
- (ii) During night, as there is no Gateman for this level crossing, the chains must be normally hooked and padlocked against road traffic and hence for the reception and despatch of trains at night, the exchange of 'All Ready' signal with the Pointsman at points T-5 is the assurance to the SM that the level crossing at Km. 421/12-13 is also secured against road traffic.

2.29.3. If crossing of No. 215 Passenger and No. 208 Express had been advised to the SM on duty at Yalvigi before he made arrangements for receiving No. 215 Passenger, he should have followed the provisions contained in Para 6K of the Station Working Instructions and arranged to satisfy himself that points T-5 at Harihar end were set and locked in the normal position for the main line and that points T-1 at Gudgeri end were reversed and set for the loop line even before

taking off signals for receiving No. 215 Passenger to enable subsequent reception of the second arriving train, namely No. 208 Express, being arranged on the loop line. Immediately after the complete arrival of No. 215 Passenger, the Pointsman on duty at points T-5 would have also set the points for the loop line and secured key P in his personal custody.

2.29.4. SM on duty at Gudgeri, the next station to Yalvigi on Hubli side, applied for and obtained line clear for No. 208 Express at 22.18 hrs. from SM on duty at Yalvigi and No. 208 Express ran through Gudgeri at 22.24 hrs. As No. 215 Passenger had already been received on the main line of Yalvigi at 21.51 hrs. and was detained there to cross No. 208 Express, the only line free at Yalvigi station for passing through No. 208 Express was the loop line. In accordance with the Station Working Instructions, the following procedure is required to be followed for receiving a down train at Hubli on the loop line:

- (i) The SM must send a Pointsman to the outermost facing points T-1 at Hubli end, with key 'B', instructing him to set and lock points T-1 for the loop line and unlock the Down Home signal for the loop line, if this had not already been done earlier prior to the reception of No. 215 Passenger on the main line in accordance with Para 6K of the Station Working Instructions.
- (ii) The Pointsman so deputed to the outermost facing points must, after proceeding to the points, insert key 'B' in the lock of points T-1, turn the key and set the points for the loop line which will enable him to release key 'Q' from its locked position on the points. He must then insert key 'Q' in the lock on the stem of the Down Loop Home signal, turn the key and thus unlock the Home signal for the loop line. The Pointsman must, thereafter, take his stand at the outermost facing points and exhibit a red signal towards the station.
- (iii) The SM must, at the time he deposes a Pointsman to the outermost facing points, send another Pointsman with key 'A' to the outermost trailing points T-5 with instructions to set and lock the points for the loop line.
- (iv) The Pointsman deputed to the outermost trailing points T-5 must insert key 'A' and turn and set the points for the loop line, which will enable him to extract key 'P' from its lock on the points. After extracting key 'P' and keeping the same in his personal custody, he must take his stand at the outermost trailing points and exhibit a red signal towards the station.
- (v) On the train approaching, first the Pointsman at the outermost trailing points and then the Pointsman at the outermost facing points, must exchange the 'All Ready' signal with the SM.
- (vi) If everything is ready for the reception of the train, the SM must after satisfying himself that the level crossing at Km. 423/2 has been secured against road traffic, as per the procedure indicated in para 2.29.5 and that the route for the train and the reception line are clear and free from obstruction, hand over key 'C' and the key of the padlock of the Down Loop Home signal lever to the Middle Duty Pointsman and direct the signal to be taken 'OFF'.

(vii) On the Down Loop Home signal being taken 'OFF', the Pointsman at the outermost facing points must take 'OFF' the Outer signal and alter his red signal to green and exhibit it towards the approaching train.

(viii) Under S.R. No. 36 (i) (a), the SM is required to assure himself that the concerned signals, governing the movement of the train, are correctly taken 'OFF'.

2.29.5. As soon as the SM has granted line clear for a down train from Hubli side, he must inform the Gateman at Km. 423/2 through the telephone provided for the purpose. The Gateman must, thereafter, close and lock the gates against road traffic, extract the keys and insert them in the lever frame and pull over lever No. 1 to release his control on the Down Outer signal. The release of the control on the Down Outer signal will enable this signal to be lowered by the Pointsman at the facing points T-1 after the relevant Down Home signal is lowered.

2.30. To recapitulate, for No. 208 Express to cross No. 215 Passenger standing on the main line of Yalvigi station, the SM on duty is enjoined by the Rules to follow step-by-step the procedure detailed below:—

- (i) Ensure that the Outer and Home signals taken off for the reception of No. 215 Passenger had been put back to 'ON' *vide* G.R. 36 (a).
- (ii) Depute a Pointsman with key 'B' to the outermost facing points T-1 at Hubli end in accordance with Para 6 D (i) of the Station Working Instructions with instructions to:
 - (a) set points T-1 for the loop line, by inserting key 'B' in the points lock, turning the key, unlocking the points and reversing the points;
 - (b) lock and extract key 'Q' from the points lock; and
 - (c) insert key 'Q' in the lock on the stem of the Down Loop Home signal and turn the key.
- (iii) Depute a Pointsman to the trailing points T-5 at Harihar end in accordance with Para 6 D (i) of the Station Working Instructions with instructions to—
 - (a) set points T-5 for the loop line after inserting key 'A' in the points lock, turning the key, unlocking the points and reversing the points;
 - (b) lock and extract key 'P' from the points lock and keep the key in his personal custody;
- (iv) Communicate instructions to the Gateman of the level crossing at Km. 423/2 between the Down Outer and the Down Home signals to close the level crossing against road traffic and insert in the locks of the two lever frame the keys removed from the gate locks in accordance with para 6 D (v) of the Station Working Instructions.
- (v) Obtain line clear on the block instrument from Savanur for No. 208 Express.
- (vi) Exchange 'All Ready' signal with the Pointsmen at the trailing and facing points in accordance with Para 6D(iv) of the Station Working Instructions;

- (vii) Satisfy himself that the loop line on which No. 208 Express is to be passed through is clear and free from obstruction under G.R. 37(a) (iii);
- (viii) Hand over to the Middle Duty Pointsman key 'C' of the Ground Lever Frame and the key of the padlock of the Down Loop Home signal lever in accordance with Para 6 D (v) of the Station Working Instructions for taking 'OFF' the Down Loop Home signal;
- (ix) Satisfy himself that the correct signals for the reception of No. 208 Express have been taken off *vide* S.R. 36 (i) (a); and
- (x) Depute the Middle Duty Pointsman to hand over to the Driver of No. 208 Express the token for the Yalvigi-Savanur block section.

CHAPTER III

DETAILS OF ACCIDENT, RELIEF MEASURES, COMPOSITION AND MARSHALLING ORDER OF TRAINS

Running of No. 215 Birur-Hubli Passenger Train on 19th March, 1968

3.1. No 215 Birur-Hubli Passenger is scheduled to leave Birur at 12.20 hrs. and arrive at Hubli at 20.50 hrs. It has, normally, no occasion to cross No. 208 Poona-Bangalore Deccan Express, which is scheduled to arrive at Hubli from Poona at 21.10 hrs. and leave Hubli at 21.25 hrs. after the arrival of No. 215 at 20.50 hrs. Or 19th March, 1968, No. 215 left Birur at 12.30 hrs. or 10 minutes late. The train was worked by Driver S. B. Harnahalli, assisted by First Fireman, V. Munuswami, and Second Fireman, K. Thangavelu, all of Hubli Division of the South Central Railway. The Guard of the train was K. Seshadri. The train was worked by engine YB 30049 and consisted of 8 bogie coaches. The train arrived at Harihar at 16.20 hrs. or 5 minutes late but left at 16.45 hrs. or 15 minutes late on account of fitters attending to No. 1 axle box on the left side of the engine tender running hot. The train arrived at Chalgeri at 16.56 hrs. but the train engine YB 30049 of Hubli shed had to be given up. Relief engine YG 3259 arrived from Harihar at 18.25 hrs. and the train left Chalgeri at 18.35 hrs. or 112 minutes late. After detentions enroute for crossing No. 202 Poona-Bangalore Mail, giving precedence to No. 203 Bangalore-Poona Express and crossing No. 220 Miraj-Bangalore Passenger, the train arrived at Yalvigi at 21.51 hrs. against the scheduled arrival at 18.53 hrs. or 178 minutes late and was detained on the main line for crossing No. 208 Poona-Bangalore Deccan Express. This Passenger train is normally scheduled to halt at Yalvigi for 3 minutes only. Engine YG 3259 had its headlight in working order but had no speedometer.

(Second-cum-luggage and brakevan)

Composition and Marshalling order of No. 215.

3.2. The train No. 215 up Birur-Hubli Passenger consisted of six wooden-bodied coaches including one TYLR (Third class ladies compartment with luggage and brakevan) and one SLR (Second-cum-luggage and brakevan) second and seventh from engine, and two steel-bodied coaches with anti-telescopic features *viz.*, GT (Third class) 305 next to engine and GTY (Third class with ladies compartment) 3191 rearmost. All the coaches were on IRS underframe *i.e.* none were of the integral type. The gross load of the train including the YG class locomotive was 330.40 tonnes. The gross load of the coaching stock excluding the locomotive was 230 tonnes and the length of the train including the engine was about 167 metres.

Details of No. 208 Poona—Bangalore Deccan Express.

3.3. On 19th March, 1968, No. 208 Poona—Bangalore Deccan Express was worked from Hubli with Mysore Division engine YP 2646 fitted with headlight and tachograph. The train was worked by 'A' grade Driver, S. Viswanath, assisted by First Fireman, D. Baliah, and Second Fireman, Armugham, all of Mysore Division. The engine crew of No. 208 Express had arrived at Hubli at 2.25 hrs. on 19th March, 1968 working No. 207 Up Express of 18th March, 1968 from Bangalore City to Hubli. The crew had thus availed of more than 12 hours rest, as against the prescribed minimum of 8 hours, before working No. 208 Express from Hubli on 19th March, 1968. H.K.T. Iyengar and Md. Barakallah of Mysore Division were respectively the Guard and Brakesman of the train. The train had a gross load of 345 tonnes including the engine. The gross load of the coaching stock excluding the engine was 246 tonnes and the train consisted of 8 coaches as against the normal authorised composition of 9 coaches. The length of the train including the engine was about 174 metres. The train had adequate brake power as per the Brake Power Certificate issued by the TXR (Train Examiner), Hubli. 47.5 cms. of vacuum were recorded on the engine and 46 cms. in the Guard's brake-van. There were no ineffective or dummied cylinders on the train.

Scheduled timings of No. 208 Poona—Bangalore Deccan Express.

3.4. No. 208 Poona—Bangalore Deccan Express is scheduled to leave Hubli at 21.25 hrs. and run through Kundgol, Saunshi, Gudgeri, Yalvigi and Savanur, before stopping at Karajgi at 22.40 hrs. for loco purposes. This train is to Cross No. 203 Bangalore—Poona Express at Saunshi, scheduled timings being as under:

No. 203 Up Saunshi	arrival	21.47
	departure	21.57
No. 208 Down Saunshi	arrival	..
	departure	21.54 Run through

The scheduled pass through timings of No. 208 at Gudgeri and Yalvigi are 22.06 hrs. and 22.17 hrs. respectively.

Actual running of No. 208 Express on 19th March, 1968 Ex Hubli.

3.5.1. On 19th March, 1968, No. 208 Express was reported to have left Hubli at 21.25 hrs. or right time, though there is reason to believe that the train might have actually left about 10 minutes late. On that date, control working was suspended between Hubli and Kundgol and the train was recorded on the Mysore Control Chart as 5 minutes late when it passed through Kundgol. The crossing between Nos. 203 and 208 took place at Saunshi as scheduled but instead of No. 203 stopping and No. 208 running through, the latter had to be stopped out of course at the station, having been the first arriving train. No. 208 had also a virtual stop at the down Outer of Saunshi as per rules before being received into the station. No. 203 Express was running on time but lost 18 minutes between Karajgi and Gudgeri. As a consequence, the following were the actual timings of Nos. 203 and 208 at Saunshi as recorded on the Mysore Control Chart:

No. 203 Saunshi	arrival	..	Run through
	departure	22.06	9 minutes late
No. 208 Saunshi	arrival	22.00	6 minutes late
	departure	22.10	16 minutes late

No. 208 lost 2 minutes for regaining speed on Saunshi—Gudgeri section and passed through Gudgeri at 22.24 hrs. or 18 minutes late. No. 208 came on the main line at Yalvigi and collided head-on with No. 215 Passenger berthed on the platform line i.e., main line at 22.35 hrs. or 18 minutes later than the scheduled pass through time of 22.17 hrs. The engine and the first three coaches of No. 208 Express and the engine and the first two coaches of No. 215 Passenger were affected by the accident.

3.5.2. The scheduled running time of No. 208 Express from Hubli to Yalvigi is 52 minutes with run through at Kundgol, Saunshi, Gudgeri and Yalvigi. As per the timings recorded by the Guard in the Combined Train Report, the train had taken 1 hour and 10 minutes between Hubli and Yalvigi. In accordance with the tachochart fixed in the locomotive YP 2646, however, the train had taken 1 hour and 5 minutes only between Hubli and Yalvigi including the stoppage at Saunshi.

Composition and Marshalling order of No. 208 Express.

3.6. Out of eight coaches on train No. 208 up Express, as against the normal authorised composition of nine coaches, only the second coach TLR (Third-cum-luggage and brakevan) 4305 was wooden-bodied on IRS underframe. The first, third, fourth and fifth coaches were of the integral type and, the other three, steel-bodied coaches on IRS underframes. Seven coaches on the train had thus anti-telescopic features. The second coach from the engine, which was the wooden-bodied TLR 4305 proved vulnerable, gave way and sustained and caused the maximum damage as a result of the collision. In accordance with the prescribed composition and marshalling order shown on page 50 of the Southern Railway Booklet No. 4, the two coaches next to engine and two in the rear should have been anti-telescopic/steel-bodied including the TLRs at either end of the train. The use of wooden bodied TLR as second coach from the engine contributed greatly to the disastrous effects of the collision.

Railway Board's instructions on Marshalling order of Passenger carrying Trains.

3.7.1. The directives with regard to marshalling of TLRs/LRs (luggage brakevans) and anti-telescopic/steel-bodied coaches on trains carrying passengers are contained in Railway Board's letter No. 65-TT-IV/48/1 of 6th May, 1967. This lays down not only the extant procedure to be implemented consistent with the availability of anti-telescopic/steel-bodied coaches but also the future policy, with relative priorities, as and when more such coaches are put on service. The basic principles to be followed appear to be as under:—

- (i) Under no circumstances, a coach other than an anti-telescopic/steel-bodied one is to be marshalled next to the train engine or as the rear-most vehicle, except (a) Inspection Carriages occupied by Railway Officers, which may be marshalled as operationally convenient and (b) LR's, VPR's, (Parcel vans with brakevan) and VP's (bogie parcel vans), which are non-passenger coaches and should be marshalled either next to the engine or rearmost on trains carrying passengers, as operationally convenient, even if they are not anti-telescopic/steel-bodied. They will function as buffer coaches in case of collisions.
- (ii) TLRs, which should be anti-telescopic/steel-bodied, must always be marshalled next to the train engine and as rearmost vehicle. In case sufficient number of anti-telescopic/steel-bodied TLRs are not available, wooden-bodied TLRs may be utilised for the time being but in view of principle No. (i), they will have to be marshalled as second coach from the engine or

second from the rear. All available anti-telescopic/steel-bodied TLRs must first be used on Mail and Express trains, then on Fast Passenger trains and then only on other Passenger trains. While marshalling TLRs, it has to be ensured that the luggage/brake portion of the front TLR is always leading i.e., on the engine side and that of the rear TLR is trailing, i.e., towards the rear to act as a buffer in case of head-on and rear-end collisions respectively, unless due to coupling difficulties on the Metre Gauge or other design factors, marshalling in this manner is not practicable. Coaches, with luggage/brake compartments like TLRPPH (Third-cum-luggage and brakevan with half postal accommodation), TLRPPQ (Third-cum-luggage and brakevan with quarter postal accommodation), SLR, etc., will also be marshalled in the same manner as TLRs.

- (iii) Provision of additional anti-telescopic/steel-bodied coaches on trains carrying passengers will be carried out in the stages depending on the availability of such stock. (a) First Stage: One anti-telescopic-steel-bodied passenger coach should be in front immediately after the TLR/LR and one similarly in the rear inside the TLR/LR, subject to the TLRs being anti-telescopic/steel-bodied, failing which, these coaches will be next to the engine and rearmost, the wooden-bodied TLRs being second from the engine and second from the rear. (b) Second Stage: Two such anti-telescopic/steel-bodied passenger coaches will be marshalled in the front and the rear in the second stage. (c) Priority in each stage: In each stage, Mail and Express trains will have the first, Fast Passenger trains the next and other Passenger trains the last priority. (d) Trains with one TLR: In the case of trains running with TLRs in the centre, one anti-telescopic passenger coach should be in front and one in rear in the first stage and two such coaches at either end in the second stage.
- (iv) Other coaches such as Sectional Coaches, Through Service Coaches, Reserved Coaches, Saloons occupied by VIPs, Tourist Cars, etc., should be marshalled in conformity with these basic principles only.

Instructions on Marshalling complied with

3.8. The marshalling order followed on 19th March, 1968 in respect of Nos. 208 Express and 215 Passenger may now be reviewed. The formation of No. 208 Express consisted entirely of anti-telescopic/steel-bodied coaches, except TLR 4305, which was wooden-bodied. This was marshalled second from the engine. The marshalling order of No. 208 Express could, therefore, be taken as having complied with the extant instructions. Similarly, in the case of No. 215 Passenger, one anti-telescopic/steel-bodied coach had been marshalled next to the engine and in the rear.

Broad results of collision including casualties

3.9.1. As a result of the collision, engine YP 2646 of No. 208 Express completely capsized on its left side, obstructing the loop line. The second coach from the engine, TLR 4305, was smashed and the underframe of this coach rammed into the first coach, GTCW (Third class with sleeper) 5246, a steel-bodied coach with anti-telescopic ends. The roof of TLR 4305

completely sheared off and lay in shambles on the loop line. The third coach, FC (First class with coupe compartment) 6994, capsized and lay on its side on the left. The five other coaches remained on the rails with no damage.

3.9.2. Engine YG 3259 of No. 215 Passenger was pushed back. It ploughed into the track, derailed and canted to the right. The rear formation parted from the engine. The wooden-bodied TYLR 390, second coach from the engine, telescoped into the first coach, steel-bodied GT.305. The six rear coaches remained on the rails.

3.9.3. Passenger casualties occurred from amongst those travelling in coaches GTCW 5246 and TLR 4305, the first and second coaches of No. 208 Express and GT 305 and TYLR 390, the first and second coaches of No. 215 Passenger. From the debris at site, 50 dead bodies were recovered. In addition, one dead body was handed over at the Karnatak Medical College (K.M.C.) Hospital, Hubli, making a total of 51 dead immediately after the accident. 44 other passengers sustained injuries, making the total casualties 95. Out of the 44 injured, one died on the way to the K.M.C. Hospital, Hubli and one on the way to the Taluq Hospital, Haveri. 26 injured passengers were admitted in the K.M.C. Hospital, 1 in the Cottage Hospital, Haveri, and 1 in the Co-operative Hospital, Hubli and 14 were treated as out-patients. After admission in the K.M.C. Hospital, one died on 20th March 1968, one on 21st March 1968, one on 24th March 1968, one on 26th March 1968 and the last on 1st April 1968 at Bombay bringing the total dead to 58.

3.9.4. The Driver and the two Firemen of No. 208 Express sustained grievous injuries and were admitted in the K.M.C. Hospital, Hubli. Subsequently the First Fireman D. Baliah died in the Hospital on 26th March, 1968. The Guard and Brakesman of No. 208 Express sustained simple injuries and were treated as out-patients at the K.M.C. Hospital, Hubli. None of the train crew of No. 215 Passenger sustained any injuries.

Relief Operations

3.10. Within five minutes of the accident i.e. at about 22.40 hrs. on 19th March, 1968, the Mysore Control was advised on the telephone that No. 208 Express had collided at Yalvigi station with No. 215 Passenger standing on the platform line i.e., main line. A few minutes thereafter, the Guard of No. 208 Express H.K.T. Iyengar also informed the Mysore Control of the accident. The Section Controller on duty, K. Kotilingam, immediately informed the Deputy Controller D. K. Ranganathan and Power Controller R. Shivdas on duty. At about 22.48 hrs. the staff at Harihar station were advised to run out the Medical Relief Special with the railway doctor. Station Masters, Ranibennur, Haveri and Gudgeri, were advised to contact local doctors and request them to proceed to the site of the accident. Station Master, Haveri, was also informed to advise the Deputy Supdt. of Police and to arrange for doctors to proceed by road in an ambulance. Three doctors travelling by No. 208 Express commenced rendering first aid to the injured passengers immediately after the accident. A local doctor joined them at about 22.55 hrs. The Divisional Superintendent, (DS), Hubli, B. P. Shenoy, who was informed at about 22.50 hrs. on 19th March 1968, by S. B. N. Sastry, Assistant Operating Supdt. (Movement), Mysore, of the serious accident, left Hubli by Medical Relief Special train at 23.20 hrs. on 19th March 1968 with Dr. K. Venkateswara Rao, Divisional Medical Officer, (DMO), Hubli and some railway doctors and reached the accident site at 00.55 hrs. on 20th March, 1968. Several Divisional Officers

of the Hubli Division travelled by this Special. This was the first railway medical team to reach the accident site. Five doctors of Hubli Railway Hospital also left by road in an ambulance car at 23.15 hrs. on 19th March, 1968 and reached the accident site at 01.15 hrs. on 20th March, 1968. A second Medical Relief Special train with a team of doctors from the K.M.C. Hospital left Hubli at 00.30 hrs. on 20th March, 1968 and reached the accident site at 01.55 hrs. The Medical Relief Special from Harihar with Dr. N. Gopalakrishnan, Asstt. Medical Officer, Harihar, and two other doctors, left Harihar at 23.40 hrs. and arrived at Yalvigi at 01.45 hrs. on 20th March 1968. B. V. Venkatesh, Divisional Operating Superintendent, (DOS), Mysore, Dr. L. R. Balasubramaniam, DMO, Mysore, Dr. S. G. Christopher, AMO, Arsikere, and R. R. Badagi, Asstt. Mechanical Engineer, (AME), Mysore, left Arsikere also by a Medical Relief Special at 23.50 hrs. and arrived at Yalvigi at 05.10 hrs. Medical relief thus became available at the site of the accident in a short time. The DS, Hubli, before he left Hubli at 23.20 hrs. had also arranged for the Civil and Police officials at Dharwar to be informed. These officials reached Yalvigi at about 3.30 hrs. on 20th March, 1968.

Details of Relief Measures

3.11.1. On arrival of the first railway medical team by the first Medical Relief Special from Hubli at 00.55 hrs. on 20th March 1968, the doctors were detailed for relief operations. The injured, who could be shifted to the nearest Hospital at Haveri by road, were sent there, accompanied by doctors in ambulance cars and other road transport. Some of the doctors from the K.M.C. Hospital, Hubli, who reached the accident site by the second Medical Relief Special train at 1.55 hrs. on 20th March 1968, were also detailed to go to Haveri to render further aid to the injured passengers.

3.11.2. All the injured were evacuated from the site of the accident, after medical aid, to different hospitals by about 5.50 hrs. on 20th March 1968, accompanied by railway and other doctors. Only one injured passenger, who could move about, insisted on remaining at the site till the body of his daughter, who was killed in the accident, was recovered from the debris. He was also subsequently taken to the K.M.C. Hospital at Hubli and admitted. The injured were initially sent to two hospitals. Some were sent to the Taluq Hospital at Haveri, which was nearest to the accident site and others were sent to the K.M.C. Hospital at Hubli. Subsequently, it was decided to move the injured persons from the Haveri Hospital to the K.M.C. Hospital, Hubli. This was done, except for one injured person, who got himself discharged subsequently from the Haveri Hospital at his own request. One injured passenger left the accident site of his own accord with the help of some of his friends and got himself admitted in the Co-operative Hospital, Hubli.

3.11.3. The DS, Mysore, arrived at the accident site by a relief train from Bangalore at 11.30 hrs. on 20th March 1968. The General Manager, Southern Railway, accompanied by the Chief Operating Superintendent, Chief Commercial Superintendent, Chief Mechanical Engineer, Chief Engineer, Chief Medical Officer and the Chief Signal and Tele-Communication Engineer, and other Officers, left Madras by a special plane for Belgaum and reached the accident site at 13.45 hrs. on 20th March, 1968. The Chief Medical Officer then went to Hubli and visited the Co-operative Hospital and the K.M.C. Hospital and saw the injured persons admitted as in-patients.

3.11.4. Extrication of the dead bodies from the debris was completed by 17.00 hrs. on 20th March 1968. The 50 bodies recovered at site were kept in the mortuary of the K.M.C. Hospital, Hubli. From amongst these, 41 bodies, which were identified, were handed over to the relatives by the police after postmortem. The remaining 9 unclaimed bodies were disposed of by the police.

3.11.5. Such of the injured persons, who were fit to continue their journey, were, after first aid, allowed to proceed along with passengers free from injuries by the unaffected coaches of No. 215 Passenger and the Second Medical Relief train at 3.10 hrs. and 3.20 hrs. respectively on 20th March 1968. *Ex-gratia* payments were made to the next of kin of the dead and to the injured persons.

3.11.6. The Mail and Express trains which were held up on either side of Yalvigi were allowed to pass through the goods shed line of Yalvigi from 13.00 hrs. on 20th March 1968. After re-railing the engines and the affected coaches of Nos. 208 and 215 and clearing the debris, the main line and the loop line of Yalvigi were made ready for traffic at 17.40 hrs. on 21st March, 1968.

Relief Measures reasonably satisfactory

3.12. Some of the witnesses examined by the Commission have stated that the relief operations at the site of the accident were not altogether satisfactory. Lack of organisation and personal touch in comforting the injured and the stranded passengers and delay in certain instances were the main points highlighted. This unfortunate accident took place at night at a wayside station, where facilities were meagre. As mentioned earlier, the medical relief reached the site of accident from various directions and the injured passengers were moved out by 5.50 hrs. on 20th March, 1968 and admitted in the Hospitals. The Commission are, therefore, of the view that the relief measures were reasonably adequate, prompt and satisfactory. Certain points and suggestions, which may, however, receive the attention of the Railway Administration, have been outlined in Chapter VII.

History of Engine YP 2646 Train Engine of No. 208 Express

3.13. Engine YP 2646 of No. 208 Express was manufactured by Telco and put on line on 28th December 1965. After the last periodical overhaul, the engine had run 2,35,340 Km. and was not yet due for the next periodical overhaul. The engine was serviced in the Loco Shed at Hubli before working No. 208 Express on 19th March, 1968. The repairs booked at Hubli were attended to but no major jobs on important items were involved. The vacuum brake system was working satisfactorily as tested by Driver S. Viswanath, and Shed staff before the engine was taken out. The VDO Yenkey tachograph fitted on the engine was in working order and no complaints had been recorded in the Engine Repair Book. The Kilometrage recorded on the dial of the tachograph at the time of the accident was 19,554.4. The engine was an assigned one in charge of Driver, S. Viswanath, and was giving satisfactory performance in every respect.

Details of damages suffered by the Railway Stock

3.14.1. Certain broad features noticed in the damages sustained by the rolling stock are outlined below.

3.14.2. Engine YP 2646 of No. 208 Express capsized to its left with a number of its parts interlocked with those of engine YG 3259 of No. 215 Passenger, which had ploughed into the track, derailed and canted slightly to its right towards the loop line. GTCW 5246, the first coach on No. 208 Express, parted from engine YP 2646 and capsized on the left. At the engine end of this coach, only the head-stock had dented and the end body panel bent inwards, indicating that this end had undergone plastic deformation as per the intended design and was able to withstand the shock of the impact as borne out by the evidence tendered before the Commission. At the other end, however, the head-stock was dented and the body panel was completely damaged and lifted upwards with the roof. The roof of TLR 4305, the second coach, sheared off and lay in shambles on the loop line along side GTCW 5246. The body of the TLR was smashed to smithereens and the underframe had rammed into GTCW 5246 more or less at the window level. The telescoping was to the extent of 15.60 metres. The end panel of the coach GTCW 5246 at the hook end, which is designed to take a uniformly distributed load of 25 tonnes, could not withstand the ramming by the underframe of TLR 4305, which pierced through the coach with a knife action. As the width of the underframe of the TLR was less than the width of the integral coach, this telescopic action was perhaps rendered possible. This caused the maximum number of casualties, as the passengers sleeping in the coach were taken unawares, trapped and crushed. Barring the last two bays towards the engine end of the sleeping coach, all the other bays were smashed. In fact, the underframe of the TLR had got itself wedged so tight inside the integral coach, that it could not be extricated even after strenuous efforts. The doors of the integral coach were all jammed and damaged with the result that the passengers trapped inside could not be removed easily and the roof had to be cut open by gas-cutting equipment for removing the dead bodies from the debris.

3.14.3. As mentioned earlier, TLR 4305 was completely smashed with all its undergear fittings, roof, side panels, partitions, seats, luggage racks and other wood-work broken into splinters. The underframe was twisted and rammed into the next coach. The hook end head-stock was completely damaged and twisted downwards. Both the bogie trucks of this TLR mounted one over the other and lodged below the yoke end of the TLR.

3.14.4. The next coach FC 6994 parted from the formation in rear with the hook buffer broken and sheared off. Similarly, the yoke end buffer shanks was bent and the buffer head was broken. The end body panel on the engine side was, however, only dented showing that this coach of integral design had also undergone plastic deformation as per design and had been able to withstand the impact. There were not deaths in this carriage. A few passengers, were injured, as a result of the coach capsizing on its left.

3.14.5. The formation of No. 215 Passenger parted from the engine No. YG 3259, the distance between them being 7.48 metres. The first coach GT 305 had its hook and body panel damaged and pushed inside. At the other end, the yoke end body panel was completely damaged and pushed

inwards, with the underframe of the wooden-bodied TYLR 390, second coach from the engine, having pierced through the panel in more or less similar telescopic action, as in the case of No. 208 Express. The second coach TYLR 390 rammed into GT 305 for a length of 11.5 metres with all its undergear fittings, side panels, partitions, shutters, luggage racks and other wood-work damaged and broken into splinters, except a part of the side and end panels of the guard's compartment, which were intact. The roof of the TYLR was resting on top of GT 305. Both the bogie trucks of TYLR 390 mounted one over the other and lodged below its underframe.

3.14.6. The permanent way suffered damages to the extent of Rs. 7200. The curb wall of the platform was also damaged for a length of 60.14 metres from the place where the tender of engine YP 2646 had capsized.

3.14.7. The vacuum handle of YP 2646 was found fully applied. The tachochart removed from the tachograph indicated that its clock was working till 21.10 hours on 20th May, 1968, when it was removed by the AME, Mysore. In the case of YG 3259, the vacuum brake was found in the unapplied position.

Condition of braking gear on unaffected coaches of 208 Express.

3.15. The Carriage and Wagon Inspector (CWI), Mysore Division, inspected the five undamaged coaches on the formation of No. 208 Express and reported that the vacuum system was in good working order with two vacuum cylinders for each coach. The brake system was found to be functioning satisfactorily.

Photographs of damaged rolling stock.

3.16. Five selected photographs of the accident showing the salient features which have a bearing on the structural design of coaches were taken.

Conditions of visibility.

3.17. It was a clear but dark night. The moon rose at 23.12 hours, more than half an hour after the accident. Though the station is electrified, there are reports of dim lights and intermittent power failures on the date and near about the time of the accident. The extent to which visibility was affected by the station being located on a curve is discussed in the next Chapter.

Duty of guard and driver of first arriving train during crossings.

3.18. In their circular No. T-157/P/1/Vol. II dated 8th January, 1965, the Southern Railway Administration have conveyed to the Divisions, the decision of the Railway Board, that, while it would not be practicable to make a rule holding guards and drivers of waiting trains responsible for watching signals for trains taking precedence or crossing, it would be desirable to impress on such staff the importance of observing the aspect of signals in order to guard against these being taken off for an occupied line. While a guard should particularly watch the aspect of signals for a train taking precedence over his train, a driver should similarly watch the aspect of signals for a train coming from the opposite direction. It was directed that the attention of guards and drivers should be focussed on the desirability of watching the aspect of signals, while their train is waiting at a station for the purpose of crossing or giving precedence.

CHAPTER IV

COMMISSION'S OBSERVATIONS AND DISCUSSIONS DURING INSPECTIONS AND VISITS**Visit to Yalvigi and Hubli on 1-4-1968.**

4.1. The Commission, accompanied by the General Manager and Heads of Departments of the Southern Railway, visited the scene of accident at Yalvigi on 1st April, 1968 and familiarised itself with the working of the station, its layout, conditions of visibility and the disposition of the affected locomotives and coaches after the accident. The damaged locomotives and coaches were inspected. On the same day, the Commission visited the K.M.C. Hospital at Hubli and made enquiries of the injured, who were in the Hospital. Certain trials were conducted at night in conditions more or less similar to those which prevailed at the time of the accident.

Visit to Yalvigi and Hubli on 20-4-1968

4.2. The Commission paid a second visit to Yalvigi on 20th April, 1968 along with the Heads of Departments of the Southern Railway to appreciate the statement of facts filed by the Railway, understand the signalling and interlocking arrangements provided at Yalvigi and get an insight into the conditions of working at the station in the light of the evidence tendered by then by the SSTE, Senior Signal and Telecommunication Engineer, Hqrs. Office, Madras, H. K. Manjunatha, (W. 3 i.e. witness 3), and the DOS, Mysore, B. V. Venkatesh, (W. 6). The Medical Relief Van at Hubli and the siding in which it is berthed, which has access at both ends, were also inspected. Night trials were again conducted at Yalvigi to simulate the conditions prevailing at the time of the accident.

Visit to Yalvigi and Hubli on 6-6-1968.

4.3. After the completion of arguments on 31st May, 1968, the Commission inspected the scene of accident for the third time on 6th June, 1968 with a view to assessing the value to be attached to the evidence tendered by several witnesses. The Commission conducted time and motion studies to test the accuracy of the statements made and the stand taken by the railway employees connected with the accident. These studies covered night operations as well. The damages sustained by the rolling stock were again scrutinised in detail. On the same day, the Commission visited the Divisional Train Control Office, Hubli, and perused the entries relating to the accident in the Special Occurrence Book.

Details of Inspections done at Yalvigi on 1-4-1968: Signalling and Interlocking arrangements.

4.4.1. The block working arrangements and the working of the signalling and interlocking mechanism were explained and demonstrated. Every phase of operation at the station relating to the reception and despatch of trains was seen under practical conditions. The working of the interlocked level crossing at Km. 423/2, the use of 'Line Blocked' collars, exchange of "All Ready" signal etc., were examined. In other words, the normal working of the station in accordance with the Station Working Instructions was observed in detail. The layout of the station was inspected. The inherent safety aids provided by the key-locked system, interlocking in the lever frame, back-locking of keys etc., were fully demonstrated. The control exercised by the SM on duty in an emergency was also shown. It was demonstrated that, if the relevant Home signal lever was put back in an emergency, the Home and the Outer got back to danger automatically thus giving full control over the reception signals. It was also shown that signals could not be cleared with incorrectly set or split points. The Main Home signal could not be cleared with points set for the loop line.

Visibility of down signals in day time

4.4.2. In order to test the visibility of signals for an approaching down train from Gudgeri side during day time, the Commission travelled on the footplate of a YG class engine from beyond the Down Outer signal. It was noticed that the Down Home signals were first visible from Km. 423/10 about 1½ telegraph posts in rear of the Down outer signal. The signals become clearly visible from Km. 423/8 i.e., almost from the Down Outer. They become very clear at Km. 423/7 and remain continuously visible except for a short distance at Km. 423/5, when the view is obstructed by trees on the main road.

Visibility of down signals at night time

4.4.3. In order to observe the conditions of visibility at night in circumstances similar to those prevailing at the time of the accident, the Commission along with the General Manager and Heads of Departments of the Southern Railway travelled on the footplate of the engine of the Test Train from Gudgeri to Yalvigi at about 23 hours on 1st April, 1968. On reaching the long stretch of down gradient of 1 in 100, the Driver shut off the regulator and allowed the Train to coast with the speed being regulated occasionally by the application of the vacuum brake. The Down Outer signal was very clearly and continuously visible from Km. 425/1 well beyond the sighting board on Gudgeri side. The sighting board, with black stripes painted on an yellow background, is located 965 metres in rear of the Down Outer signal and is intended to indicate to the Driver that he is approaching a Stop signal (Down Outer). It is normally located at the prescribed braking distance from the Stop signal taking into account the approach gradient and other factors. The Outer signal was, therefore, visible for well over 1 Km. The Home signals were also clearly visible from a point well beyond the Down Outer signal. Visibility was actually better at night except that the view was obstructed for a very short distance at Km. 423/5.

Night trials on range of visibility of obstruction on main line

4.4.4. For simulating the conditions which prevailed at the time of the accident, a YG class engine with a couple of coaches was kept on the main line (platform line) at Yalvigi facing Gudgeri. The engine was placed at the Gudgeri end of the platform in the position in which No. 215 engine, also a YG class locomotive, was reported to have been standing at the time of the accident. The engine headlight was not kept burning in the first instance. It was observed from the footplate of the Test Train, which was received on signals on the loop line at Yalvigi, that the engine without headlight became visible to the Driver of the Test Train while entering the loop line from Points T-1. It was apparent that the stationary engine on the platform line would not have come within the range of the headlight beam of the engine of the Test Train at this point, if it had moved on the main line, as the headlight would not then take a sweep to the left, as had happened when entering the loop line. To examine conditions of visibility, if the Train was taken into the station on the main line, the Test Train was backed on to the straight portion beyond the Down Home signals, points T-1 were reset and the Test Train was moved at slow speed towards the engine standing on the main line with headlight dimmed for this test. From about 50 to 75 metres in rear of the Down Home signals on the straight portion, it was not possible to determine whether the YG class locomotive with the dimmed headlight was standing on the main line or the loop line. As the Test Train approached the standing engine, it was possible to see that an engine was standing on the main line from the fireman's side i.e., left side from a point 140.75

metres from the standing engine. This was well within the Down outermost facing points. The Test Train was moved further and it was observed that the engine headlight beam fell on the standing locomotive from a point 73.70 metres only from the standing engine. The Test Train Driver could pick up the obstruction from his side i.e., the right side of the cab, only from this distance. The trials were conducted under controlled conditions. It was observed that if the engine headlight of the YG class locomotive was not burning, the conditions of visibility would have been more difficult. A train running at 50 Km. p.h. would cover 14 metres in one second. In other words, from the point, where the First Fireman on the left side of the cab, could have noticed the engine standing on the platform line, it would have taken hardly 10 seconds to reach the point of impact. This would include the Driver's reaction time on being warned of the impending danger. The conditions would be the same, irrespective of where the engine of No. 215 was standing, on account of the curvature, the Driver of the incoming train being on the outside of the curve.

Inspection of engines involved in collision

4.4.5. The Commission inspected the wrecked engines as well as the coaches at Yalvigi. The details of damages have been given in Chapter III. It is in evidence that, in Engine YP 2646 of No. 203 Express, the clock of the tachograph was functioning even after the collision and the vacuum brake handle was found in the applied position. At the time of the inspection by the Commission, the vacuum ejector handle was in the horizontal or applied position. The vacuum brake of YG 3259 of No. 215 was in the off position.

Details of Inspections done at Yalvigi on 20-4-68 Signalling and Interlocking arrangements

4.5.1. The operation of points T-1, the use of keys B and Q and the functioning of the mechanical detector at the points were demonstrated. It was shown that, even if there was a split of one-eighth of an inch in the points, the detector would not permit the signals being lowered. It was shown that keys B and Q were not interchangeable and they could not be inserted except in the appropriate holes in the stem of the Down Home signals. It was demonstrated that without key B or Q being inserted in the stem of the Down Home signals, the appropriate Home signal could not be lowered either by pulling the relevant Home Signal lever in the Ground Lever Frame or by pulling the wire even though the points were set correctly. The signal arm could not be lowered in such circumstances even by manually pulling the relevant connecting rod above the lock in the stem of the Home signals. Only when the points were correctly set and locked and the appropriate key was inserted in the stem of the Home signals, the relevant Home signal arm could be lowered either by pulling the appropriate Home signal lever or by manually pulling the transmission wire. In the latter case, the transmission wire had to be kept in the pulled condition to enable the signal arm to continue in the 'Off' position. It was shown that if some one wanted to lower the Home signal as also the Outer by pulling the transmission wire, a second person would be required to pull the transmission wire to the Outer signal to lower it and keep it lowered, assuming that the slot from the interlocked level crossing on Hubli side had been given. In case the slot was not given, the Outer could not be lowered by manually pulling the transmission wire from near the Home signals or anywhere between the Home signals and the interlocked level crossing. It was also shown that if the SM put back the Home signal lever in the

Ground Lever Frame to normal, the relevant Home and Outer signals went back to danger instantly.

Day Time Visibility of Down Signals

4.5.2. The Commission again tested the day-time visibility of the Down Home signals from the Down outer from a push trolley and found the Down Home signals clearly visible from the Down Outer signals. On the run from the Down Outer to the Down Home signals, the visibility of the latter was good except in one or two places, where the view was obstructed by tress on the road. Continuous visibility was available from the gride juts in rear of the interlocked level crossing i.e., for about 500 metres from the Home signals. As indicated in para 2.28.2 of Chapter II, the distance from the Outer to the Home signals on the Hubli side is about 830 metres as against the normal requirement of 580 metres.

Visibility from Lookout Post and Tool Box

4.5.3. From the Look-out Post on the platform, the Home signals and point indicators on both sides were visible with a train standing either on the main line or the loop line. The steel ladder to the Look-out Post was, however, steep without side supports. There is a tool box near the SM's office, which, it is said, was occasionally used to observe Down signals etc., but it was not easy to climb on to the top of this tool box, which has a sloping lid of corrugated sheet iron. Standing on the protruding stone-rest underneath the tool box, one could just see the arm of the Down Main Home signal and with some difficulty the arm of the Down Loop Home signal, if a train were standing on the Loop Line. The view was completely obstructed when a train was standing on the main line at the normal place of stoppage. Observation was again made at night, with reference to the back-lights of the Down Home signals and the position was found to be the same as during day time.

Morse and control connections: Side rooms

4.5.4. Valvigi is connected on the inter-morse telegraph circuit between Harihar and Hubli. It was also shown that Hubli could be contacted by asking Mysore Control to ring Hubli station or the Hubli Control Office. There is a small room behind the SM's office with another store room by the side of the small room. The store room is normally kept locked. The small room is used for keeping parcels.

Ground lever frame: Pad-locking arrangements.

4.5.5. The interlocking in the Ground Lever Frame was demonstrated. While trying out the locks on the levers of the Ground Lever Frame, it was observed that the key of the lock on the Down Loop Home Lever (No. 2) could open the lock on the Up Main Home lever (No. 4). The reverse was not, however, possible. While the key of the padlock on lever No. 2 could unlock the lock of the Up Main Home lever (No. 4) it could not lock the same. It was also noticed that the other locks could not be opened except by their own keys. In particular, it was noted that the lock on the Down Main Home lever could only be opened by its own key. While the locks used are intended to be normally non-interchangeable, this cannot be ensured in practice with the use of ordinary G. I. padlocks.

Inspection of engines and coaches.

4.5.6. The Commission again inspected the damaged engine and coaches stabled on the sidings at Yalvigi. It was mentioned that anti-telescopic

coaches were designed to withstand the impact force of a certain magnitude and if the force exceeded the maximum for which the coach was designed, it might give way. Steel-bodied coaches would no doubt be able to withstand greater shocks, but it might become a problem to extricate the injured and the dead as gas-cutting equipment would have to be used extensively. It was shown that the width of the under-frame of the wooden-bodied TLR (second from the engine of No. 208 Express) was less than the width of the anti-telescopic third class sleeper coach (first coach from the engine), which could have resulted in the under-frame of the wooden-bodied coach telescoping into the third class sleeper coach.

Night Inspection of Yalvigi on 20-4-68.

4.5.7. A night inspection of Yalvigi station was made with particular reference to visibility of signals. The Commission travelled on the footplate of the engine of the Test Train from Gudgeri to Yalvigi, where the Train was received on the loop line. A YG class engine with its headlight dimmed was standing on the main line more or less at the place at which the engine of No. 215 was reported to have been standing at the time of the accident. The Outer signal was visible from Km.425/1, well in rear of the sighting board i.e. for a distance of more than one Km. from the Outer. The Home signals were also visible from a point 1 to 2 telegraph posts in the rear of the Outer signal and they were continuously visible except when the view was momentarily obstructed by trees. That the engine was standing on the main line and not on the loop line could be determined only after the Test Train entered the loop line from points T-1. The other observations made by the Commission earlier on 1st April, 1968 were confirmed. There was no moon light at the time of the inspection and electric lights at the station had also failed.

Change in padlocks used in ground lever frame on 20-4-68.

4.5.8. The Chief Signal and Tele-communication Engineer, Southern Railway, had the numbers on the locks on the four levers of the Ground Lever Frame checked at about 23.30 hrs. on 20th April, 1968 and found that the lock on the Down Loop Home Signal lever (No. 2) had been changed after the Commission's inspection in the forenoon, described in para 4.5.5. Further enquiries disclosed that, after the Commission's inspection in the morning, the lock on the Down Loop Home signal lever (No. 2) had been changed as a measure of safety. The Commission were satisfied that a change had been made but, when the original locks were tested for non-interchangeability, it was observed that the key of the lock on the Down Main Home signal lever (No. 1) viz., Key No. 160, could open the lock on the Down Loop Home signal lever (No. 2) but could not relock the same. The reverse was also not found possible. The other locks could be opened only by their own keys. In other words, the key of the lock on the Down Loop Home signal lever (No. 2) would not open the lock of the Up Main Home signal lever (No. 4) as noticed by the Commission in the morning.

Observations of the Commission at Yalvigi on 6-6-1968.

4.6.1. A number of time and motion studies and other observations were conducted by the Commission at Yalvigi both during day and night on 6th June, 1968 to verify the correctness of the evidence given by some

railway employees and the stand taken by them before the Commission. For easy correlation, the details are outlined below giving reference to the relevant portions of the evidence tendered by the witnesses concerned.

Reported use of tool box by ASM, Yalvigi.

4.6.2. D. V. Patil, ASM, Yalvigi, (W. 30), stated before the Commission that he climbed on to the top of the tool box, near the Ground Lever Frame to observe the lowering of the Down Home signal for No. 208 Express. It was observed by the Commission that only a person with some agility could manage to get on the top of the steep lid of the tool box but he would be able to slip particularly if he was in a hurry and at night. With a train barred on the main line or the loop line, only the arms or the back lights of the Down Main and Loop Home signals were visible from the top of the tool box but it was impossible to exchange 'All Ready' signal with the Pointman at points T-1, as the view was completely obstructed. The observations made by the Commission on 20th April, 1968 were thus confirmed.

Visibility of Headlight of approaching Down Train.

4.6.3. D. V. Patil also averred that, on seeing the glow of the engine headlight of the approaching No. 208 Express, he shouted to the Middle Duty Pointsman Siddappa Hanumappa as to why the latter has not taken off the signal for the reception of the train. An engine, with its headlight burning brightly, was sent into Yalvigi-Gudgeri block section for a distance of about 1½ Kms beyond the Down Outer signal at about 20.30 hrs. on 6th June, 1968 and its approach into Yalvigi station, on signals, on the loop line was watched (a) from near the tool box and (b) from the Look-out Post. At the time of the experiment, the main line was occupied by the Test Train with a YG class locomotive, with dimmed headlight, at the point where No. 215 engine was reported to have been standing on 19th March, 1968 at the time of the accident. From the top of the tool box, the headlight of the engine could not be observed at any point in its approach. When the engine was near the Home signals, its approach could be inferred on account of the sides of the staff quarters nearby getting illuminated and a diffused light appearing in the region of the Home signals. From the top of the Look-out Post, however, the engine headlight was seen from just beyond the Down Outer, first intermittently, and then continuously from the Down Outer signal. The headlight was fully visible only between the Outer and the Home signals. The Home signal post was illuminated by the engine light only after the engine passed the level crossing at Km. 423/2. It was not, however, possible to distinguish which Home signal arm had been taken off, until the engine came very near the Home signal post. It may be inferred from these observations that in the circumstances then prevailing the SM on duty could not have observed the headlight of No. 208 Express, as it approached Yalvigi on 19th March, 1968 and even if he had had a fleeting glimpse, the train would have come very near the Down Outer signal giving him practically no time to observe the prescribed sequence of operations for taking off the Down Home and Outer signals for its reception.

Reported illumination of Home signal posts by headlight of No. 208: version of middle duty pointsman

4.6.4. Siddappa Hanumappa, Middle Duty Pointsman, Yalvigi, (W. 32), stated before the Commission that, as he stood between the main and the

loop lines with the token pouch and a torch, opposite to the station building, the Home signal post was illuminated by the headlight of the approaching Express train and he observed that the Down Main Home signal had been lowered. He immediately rushed back to the platform shouting to the passengers on No. 215 to get down from the coaches and run away. Observations were made by the Commission under similar circumstances. A person with a pouch and a torch standing between the main and loop lines opposite the station building could pick up the headlight of the approaching engine as a moving glow of light at a point just beyond the Down Outer signal. Full view of the headlight was available only between the Down Outer and the Home signals and the Home signal post was illuminated only after the engine passed the level crossing at Km. 423/2 and came on to the straight. It was not, however, found possible to distinguish which Home signal arm was off, until the engine was almost at the Home signal post. The evidence given by Siddappa Hanumappa was not thus borne out by the Commission's observations.

Observations on Look-out post and Ground Lever Frame

4.6.5. Look-out Post: The Commission observed that the Railway had since provided a sturdier wooden ladder with side supports for the Look-out Post, although it could have been less steep. The Station Master could make use of the Look-out Post for the purpose for which it was intended. The Look-out Post is located at a distance of 21.4 metres from the SM's office and it took 25 seconds to go from the SM's office and reach the top of the Look-out Post.

Ground Lever Frame.—The Ground Lever Frame is at a distance of 4.2 metres from the SM's office. The SM could observe the levers in the Ground Lever Frame from the booking counter inside his office but not from near the block instruments. The Ground Lever Frame, the Look-out Post and the tool box are fairly well illuminated at night provided adequate power supply is available. At the time of inspection, the power supply failed and a temporary connection was given from the portable generator of the Railway, which happened to be available at Yalvigi. With the power provided by this generator, the visibility conditions became satisfactory. It was reported that normally on account of fluctuations in the power supply, lights were usually dim till about 22 hours. This was observed by the Commission on 6th June, 1968. In such circumstances, visibility and illumination cannot be deemed satisfactory at night until power supply improves after 22 hours each night.

Demonstration of working of signals.

4.6.6. It was demonstrated that, without the points being set correctly or without the proper key being inserted in the stem of the relevant Home signal, the appropriate lever in the Ground Lever Frame could be pulled but the signal arm would not respond and come off. This is in consonance with the evidence of H. K. Manjunatha, (W. 3), SSTE, Hqrs. Office, Madras.

Time and motion studies.

4.6.7. The Down Home signal post at Yalvigi is 327.10 metres from the SM's office. It was observed that it took 4 minutes to reach the Down Home signal post from the SM's office. The Up Home signal post is located 278.60 metres from the SM's office and could be reached in 3 minutes 10 seconds. The distance from the Down Home signals to the Gate Lodge

at Km. 423/2 is 423.9 metres and it took 4 minutes 45 seconds to walk from the Down Home signal post to the Gate Lodge. These figures are based on the average of the time taken for the to and fro trips at normal pace.

4.6.8. Durga, Pointsman, Yalvigi, (W. 36), stated that he was functioning as Gateman at the level crossing at Km. 423/2 and that, though he gave his slot for lowering the Down Outer for No. 208 Express, he did not observe whether the signal had been taken off, or not. It was observed by the Commission that normally the Gateman should have no difficulty in becoming aware as to whether the signal had been taken off or not.

4.6.9. R. Govindaswamy, (W. 41), SIMM (Signal and Interlocking Maintainer Mechanical), Yalvigi, occupies staff quarters No. YLG/16 on the Harihar side of the station 116 metres away from the SM's office. It was observed that it took 1 minute 25 seconds for a person to walk from the house of the SIMM to the station. This SIMM stated before the Commission that, after the accident, he came to the station, went to the tea stall 36 metres away on the Harihar side to observe the point indicator at points T-5, then retraced his steps, crossed over to the loop line through the gap between the engine of No. 215 and its formation, which had parted, and walked towards T-1 points along the loop line. He met Pointsman Durga near the rear end of No. 208 Express which was 106 metres from points T-1. After verifying the key with Pointsman Durga, he went to points T-1 and then returned to the station. The total time taken for all these movements was given by R. Govindaswamy as about 15 minutes. The following approximate distances between the points mentioned below were verified by the Commission at site:

Between Points	Approximate distances
Quarters YLG/16 to station house	116 metres.
Station house to tea stall	36 metres.
Tea stall to spot of meeting Durga	246 metres.
From the spot of meeting Durga to points T-1	106 metres.
From points T-1 to station house	316 metres.
Total approximate distance covered.	820 metres.

It would normally take about 10 minutes 30 seconds to cover the total distance without stopping at any point. The SIMM has, however, stated that he stopped at the station house, then near the tea stall for observing the point indicator at points T-5, then at the spot of meeting Pointsman Durga, where he verified the key carried by him and lastly at the points T-1 for verifying its setting and condition. The Commission is, therefore, inclined to accept the estimate of time given by the SIMM. Up to the point of his meeting Pointsman Durga, he would have covered about 400 metres, which should normally have taken him about 6 minutes, perhaps longer, taking into account the stops at the station

and near the tea stall. Before leaving the house, however, Govinda-swamy dressed himself, for which he could have taken an additional minute or two, though according to his own evidence, he took more time.

4.6.10. The ASIMM (Assistant Signal and Interlocking Maintainer Mechanical), R. Dasarathy, (W. 23), is living in staff quarters No. YLG 17-E, which is at a distance of 131 metres from the station house on the Harihar side. This witness stated that he almost ran from his house to the station immediately on hearing the loud sound of the collision. It was demonstrated that a person walking fairly fast could cover the distance from his house to the station in 1 minute 25 seconds. If he had run, he could possibly have covered the distance in about a minute. In other words, this witness could have reached the station within a minute after the collision, as deposed by him.

4.6.11. E. K. S. Pullay, ASM, Yalvigi (W.8), occupied staff quarters No. YLG/5, which is the nearest unit about 20 metres away from the station. It would have taken him hardly one to two minutes to dress up and come to the station after the collision.

Determination of the position of the engine of No. 215 prior to the Accident

4.6.12. Different versions have been given about the actual location of the engine of No. 215 Passenger prior to the collision. The Guard of No. 215 Passenger K. Seshadri, has stated that his van was standing near the end of the platform, which means that the rearmost coach on the train was possibly either partially or fully outside the platform at Harihar end. The Driver of No. 215 Passenger, S. B. Harnahalli, (W.38), has, however, stated in one place that the engine was about 120 to 150 feet in advance of the station building. In another place, he has stated that the train was standing almost in the middle of the platform. A. D. Nadaf, RPSI (Railway Police Sub-Inspector), (W.44), stated that the second class coach in which he was travelling was third from the engine and was opposite to the Ground Lever Frame. D. V. Patil, ASM (W.30), has also stated that there were about 2 coaches of No. 215 Passenger standing in advance of the Look-out Post. On the platform of the station, a mark was painted to show the position of the engine of No. 215 prior to the accident. This mark was 60.5 metres from the position of the engine after the collision. If this is accepted, the cow-catcher of the engine of No. 215 would have been 105 metres from the station building prior to the collision. As the total length of the train was about 167 metres, the rear portion of the train would then have been very well inside the end of the platform, which is not consistent with the evidence of the Guard. Besides, the fifth coach from the engine would have been opposite to the Ground Lever Frame and not the third as mentioned by A. D. Nadaf. If the train had, however, been standing centrally as stated by the Driver of No. 215 Passenger, the engine would have been 22.5 metres nearer to the station and the third coach from the engine might be taken as almost near the Ground Lever Frame. This appears to be the more probable location of the engine of No. 215. In this position, the engine of No. 215 would have moved by 39 metres as a result of the collision. The first coach of No. 215, GT 305, would have then moved by 46.5 metres. The rest of the formation would have, however, moved only by 35 metres on account of the TYLR 390 telescoping into GT 305 to the extent of 11.5 metres.

Time required by No. 208 to come into Yalvigi from sighting board

4.6.13. The distance from the Down Outer to the Down Home signals is about 830 metres and a train running at 60 Km.p.h. would cover this distance in 50 seconds. From the point where the Down Outer signal is visible to the Driver upto the Down Home signals, it would take hardly 2 minutes.

Visibility Tests

4.6.14. The sighting distances for the Outer and Home signals as well as the points from which the obstruction on the main line could be observed were again verified from the foot-plate of a light engine, which was received on signals on the loop line. The carriage lights of the Test Train berthed on the main line of Yalvigi station could be seen as a diffused glow from the left side of the foot-plate of the incoming engine between Km. 422/10 and 9 i.e. from near the Home signals. It is only from this point that a burning torch held between the main line and the loop line opposite to the station building could also be located but the pouch could not be seen. The dim headlight of the engine on the main line could be seen from the Driver's side from Km. 422/9 but only from the left side, it was possible to say that the obstruction was on the main line. This was after passing points T-1 on the loop line and was in conformity with the Commission's earlier observations.

Resiting of point indicator for points T-1

4.6.15. Verification at site showed that the point indicator at points T-1 would have to be located 45.5 metres away from the points on the western side of the track to make it visible from the platform opposite to the station building. Railway land is available only for a distance of 14 metres from the centre line of the track at this location. This would involve acquisition of land. Even then "All Ready" signal will have to be exchanged with the Pointsman on duty at points T-1.

Realignment of Yard

4.6.16. The possibility of realigning the yard to improve visibility was also examined at site. By shifting points T-1 further towards the level crossing on the straight portion without infringing the gradient and taking the loop line on an almost new alignment well away from the main line i.e., without being parallel to the main line, it would perhaps be possible to improve the range of visibility for an approaching down train. It would then be possible for the Driver to infer very much earlier that the obstruction was actually on the main line.

Visit to Rail Coach Division of Bharat Earth-Movers Ltd. Bangalore on 27th April, 1968

4.7. The Commission visited the Rail Coach Division of Bharat Earth-movers Ltd., Bangalore, on 27th April, 1968. The construction of Board Gauge coaches of integral design at different stages was seen. The anti-telescopic features were explained in detail. The Commission noted that these coaches were designed to take a buffing load of 100 tons at each buffer and that the end panels had been strengthened to take a uniformly distributed load of 30 tons. Besides, the end panels had been strengthened to take a load of 60 tons, 12 inches above buffer level on each side, to provide for the contingency of buffers overriding.

Visit to International Instruments Ltd., Bangalore on 8th May, 1968

4.8. The Commission paid a visit to the factory of Messrs International Instruments Ltd., Bangalore, and acquainted itself with the details of manufacture of VDO-Yenkay tachographs, which are now being used on the Indian Railways. One such instrument was in use on the engine of No. 208 Express YP 2646. The working of the tachograph, the procedure followed for calibration, the tests conducted to ensure satisfactory performance and the tolerances allowed were explained and demonstrated. It was pointed out that the firm's guarantee is with regard to the top two-thirds of the scale i.e., between 40 Km. and 120 Km. and the instrument is so adjusted that the tachograph normally does not indicate less than the actual speed, the permissible positive tolerance being 3 per cent or 3 Km. whichever is less.

Visit to Speedometer Servicing and Testing Section, Southern Railway Locomotive Workshops Perambur on 11th May, 1968

4.9.1. The Commission visited the Speedometer Servicing and Testing Section of the Southern Railway at the Locomotive Workshops, Perambur, and got acquainted with the scope and functions of the organisation. The Chief Mechanical Engineer of the Southern Railway explained the details of the work carried out at the Servicing and Testing Section.

4.9.2. The Southern Railway has developed major servicing stations for repairing, servicing and testing speedometers/tachographs at Perambur and Golden Rock. In Mysore Workshops, only minor adjustments are undertaken. For major attention, instruments from Mysore Division are sent to Perambur. When speedometers are tested, both mechanical and calibration errors are attended to. Hasler instruments, which are purely mechanical, are also serviced and maintained in Locomotive Workshops, Perambur. Normally these instruments are taken up for overhauling and repairs, about once a year. The instruments may be sent to Shops earlier in case they need attention.

4.9.3. The VDO Yenkey tachograph instrument uses a magnetic device for the purpose of converting the number of revolutions into Km. p.h. on the chart and the dial. The same mechanism drives both the needle on the dial and the speed stylus on the chart. Both are fixed to the same spindle. There is a technical possibility of variation between the visual indication of the speed on the dial and that recorded on the chart, on account of the needle not being fixed securely, without play on the spindle.

4.9.4. The VDO Yenkey tachograph instrument is somewhat sluggish during acceleration and deceleration. In other words, there is a small time lag before the actual speed is indicated in the chart and dial. When the speed is being picked up, the instantaneous indication is slightly less than the actual speed. During deceleration, the indication is slightly more than the actual speed. These time lags are reported to have been observed in running conditions. But tests on the test bench in the Factory premises have not provided confirmation for the existence of such defects. They may be ascribed to needle or spindle inertia, but the marginal error may perhaps at best be 2 or 3 Km.p.h.

4.9.5. While checking up the tachograph charts, action against drivers for exceeding speed is initiated only after correlating the speed indication with the distance travelled at the higher speed. Where the margin

is small, it is not possible to arrive at precise conclusions. Consistent violations receive notice.

Visit to Integral Coach Factory, Perambur on 11th May, 1968.

4.10.1. The Commission had discussions with the General Manager, Integral Coach Factory, Perambur, along with his Heads of Departments, on 11th May 1968, when the ADSM (Additional Director Standards Mechanical), RDSO (Research, Designs and Standards Organisation), Lucknow, was also present. The Commission went round the Shell unit as well as the Furnishing Annexe.

4.10.2. The General Manager, Integral Coach Factory explained in detail the manufacture of the sub-assemblies and major assemblies of the Integral Coach in the Sheet Metal Shop and the Assembly Shop with special reference to the assembly of the end construction, the trough floor and body shell. The structural details of the anti-telescopic features, highlighting the differences between the Broad Gauge and Metre Gauge were explained. The procedure adopted for static testing and dynamic testing of the bogies after assembly were shown.

4.10.3. A demonstration was carried out in the Furnishing Annexe to show the effect of the collision between the shunting engine and a rake of 5 or 6 MG coaches at a speed of about 15 Km.p.h. The Commission was particularly interested to see the behaviour of the centre buffer coupler of the MG coaches at the time of such collision. A similar collision was also demonstrated between the BG shunting locomotive and a BG match truck to see the behaviour of the side buffers during the collision. It was explained to the Commission that the behaviour during such collisions at higher speeds would be certainly different. It was also explained that it would be very difficult to simulate the circumstances of the collision of a full train running at normal speed such as the one that occurred at Yalvigi. The conditions in each such case would be different and the vehicle behaviour would also vary depending on the conditions.

4.10.4. The ADSM, RDSO, explained the set-up at the RDSO at Lucknow, its functions and the work that had been done so far with special reference to the Integral type of coaches. Various trials carried out on this type of coaches and the improvements effected in respect of the bogie to ensure the safe running of these coaches at higher speeds upto about 136 Km.p.h. were outlined. The Commission was told that facilities available at the RDSO were adequate to carry out design and research functions for the purpose of normal operation. However, the need for expansion with reference to modernising the various aspects of railway working as also for export promotion had already been realised and a blue print had been made out with reference to the requirements for the next 10 years.

4.10.5. It was further explained that it would neither be correct nor practicable to undertake fundamental research in the RDSO as the field covered by the requirements of Railways was very large and varied. The fundamental research requirements primarily covered the field of material technology and the RDSO would have to bank upon the work done by other Research Institutes in India as also elsewhere in the world. In certain fields, results achieved by applied research by other Research Institutes were also available and the RDSO were in touch with such developments through study of publications, documentation and by sending their officers abroad on deputation. Applied research

required mainly for railway operation was intended to be carried out by the RDSO and to this extent the equipment at Lucknow was comparable to those of many of the Railways abroad. This has been recognised and on the basis of the RDSO's support, India has been able to export railway rolling stock and components to other parts of the world. Expansion of the RDSO was also necessary and it is the intention of the Ministry of Railways to equip the RDSO with more sophisticated equipment subject to availability of funds. Some modern types of track recording cars were now under manufacture and these will be equipped with electronic instrumentation and equipment.

4.10.6. It was explained to the Commission that Railways had on their organisation competent technical officers to deal with, analyse and find reasons for the accidents and also take remedial action to prevent them. However, whenever technical problems arose for which the assistance of the RDSO was necessary, such matters were referred to them. Any consequential design changes or major modifications would be a matter for the RDSO to decide upon. References have been made by the individual Railways or the Railway Board on several occasions on such issues to the various wings of the RDSO.

4.10.7. While discussing the design of coaches, it was mentioned that the possibility of using low alloy high tensile steel was under consideration. This quality of steel is expected to be produced by M/s. Hindustan Steel Ltd., shortly. It was stated that, for steel sections of sizes now in use, members of low alloy high tensile steel would have higher load bearing capacity and yield point. In other words, with equivalent sections, higher strength would be achieved with the use of low alloy high tensile steel, thus affording greater security at the time of impacts in collisions etc.

4.10.8. It was stated that the RDSO had not been devoting its attention so far to the problem of dissipation of kinetic energy at the time of collisions and derailments.

Visits to Bharat Electronics Ltd., and Indian Institute of Science, Bangalore, on 18th May, 1968 and 1st June, 1968 respectively

4.11. The Commission paid a visit to Bharat Electronics Ltd. and the Indian Institute of Science, Bangalore and held exploratory discussions with the officers of the Bharat Electronics Ltd. and some professors of the Institute, in connection with developing suitable electronic aids for preventing collisions of the type now under investigation. Certain suggestions evolved as a result of these discussions and further action to be taken in this connection are outlined in Chapter VIII.

Visits to stations equipped with Standard I Mauq and Standard III LQ Signalling

4.12. The Commission had occasion to visit stations equipped with Standard I, Multiple Aspect Upper Quadrant Signalling, and Standard III Lower Quadrant Signalling during the course of its inspection tours.

Visits to Mysore Control Office and Station

4.13. The Commission visited Mysore Divisional Control Office on 8th June, 1968 and studied its working. It was noticed that three of the four Section Control Circuits were interrupted either partially or fully on the date of inspection. The track-circuiting arrangements at Mysore station and the protection they afforded were examined on the same date.

CHAPTER V

SUBMISSIONS OF THE SOUTHERN RAILWAY AND RAILWAY STAFF IN THEIR AFFIDAVITS FILED BEFORE THE COMMISSION**Submission of the Southern Railway**

5.1. The Southern Railway Administration filed on 6th April 1968, a statement of facts supported by an affidavit in response to the notice issued by the Commission under Rule 2(1)(a) of the Central Commissions of Inquiry (Procedure) Rules, 1960. It is their submission that the signalling and interlocking arrangements at Yalvigi station are fool-proof and fail-safe in design with regard to reception and despatch of trains and that, so long as the detailed instructions laid down are adhered to, safety is fully ensured.

Statements of some of the Railway Staff recorded by Railway Officers/Officials

5.2. K. Alala Sundaram (W.4), DOS, Hubli, who reached Yalvigi at about 00.45 hrs. on 20th March 1968, and B. V. Venkatesh (W.6), DOS, Mysore, who reached Yalvigi at about 05.00 hrs. on 20th March 1968, recorded on 20th March 1968 and on succeeding days the statements of some of the railway staff concerned. These have been filed before the Commission. Besides, the statement dated 1st April 1968 of R. Govindaswamy (W. 41), SIMM, Yalvigi, has been filed. The value to be attached to these statements is discussed in Chapter VI.

Affidavits filed by some of the Railway Staff

5.3. Six of the railway employees, to whom notices were issued under Rules 4 and 5 of the Central Commission of Inquiry (Procedure) Rules, 1960, filed their statements supported by affidavits. Their submissions in their affidavits are summarised in the following paragraphs.

Case of D. V. Patil ASM, Yalvigi

5.4.1. D. V. Patil (W. 30) had done night duty on the 17th and 18th of March 1968. He was relieved at 07.00 hrs. on the 19th March 1968 and took charge on the same day at 19 hrs. After taking charge, he checked the cash, the key lock-up box, the Ground Lever Frame, the Padlocks and the block instruments.

5.4.2. Durga was on duty at the points T-1; Biddadi Veerabhadrapa was on duty at the points T-5; Siddappa Hanumappa was the Middle Duty Pointsman; and Vasavanna Gorawar was the Gateman at the level crossing at Km. 423/2. Basavanna Gorawar had to be relieved by Hanumantha Chikkappa at 19 hrs. on 19th March, 1968.

5.4.3. After taking charge and making the necessary entries in the register, he (D. V. Patil) contacted the Section Controller, Mysore, who intimated that No. 215 Up would be arriving late and Nos. 203 Up (Bangalore—Poona Express) and 220 Dn (Miraj—Bangalore Passenger) would be crossing at Yalvigi. For the purpose of receiving and despatching these trains, he had to issue necessary instructions on phone to the Gateman. Basavanna Gorawar, who was on duty at the level crossing at Km. 423/2 received the instructions on the phone and attended to his work.

5.4.4. Later, he was informed by the Section Controller that Nos. 215 and 208 would be crossing at Gudgeri K. Govindaswamy (W.13), ASM,

Savanur, contacted him and obtained line clear for No. 215 and also informed him that Manumantha Chikkappa, Gateman, would be arriving by No. 215 at Yalvigi. He gave necessary instructions to all the Points-men to receive No. 215. That train was duly received on the main line. He checked the tail-lamp and satisfied himself that the signals were put back to the 'ON' position. He was at the exit gate for collecting tickets. He had issued instructions for the despatch of No. 215 as permitted by the Section Controller earlier. At that time, the Driver of No. 215 met him and asked him to supply water for his engine. As water could be supplied to Passenger trains at Yalvigi only after obtaining permission from the Section Controller, he contacted him for that purpose. He was instructed to obtain a memo from the Driver and then supply water. The Driver declined to give a memo and the matter was dropped. The Section Controller also informed him then that No. 215 should be detained at Yalvigi and that No. 208 would be crossing No. 215 at Yalvigi instead of Gudgeri as ordered earlier. He then attended to the work of issuing tickets and booking parcels. Then he called out the names of the Points-men on duty for the purpose of giving them necessary instructions for receiving and despatching No. 208. Siddappa and Veerabhadrappe responded to his call. He asked Siddappa to secure Durga, the Pointsman, who had been posted on duty at points T-1. Siddappa went in search of Durga and then came and reported that Durga was not to be seen anywhere at the station. He then sent Veerabhadrappe to the points T-5 with key 'A' with instructions to set the points for the loop line. He instructed Siddappa to lower the signals, after exchange of "All Ready" signal, to deliver the outgoing token to the Driver of No. 208, to bring the incoming token after the train passed through and, in the meantime, to wait for the said train near the loop line. He then gave a call to the level crossing at the Hubli end. The call was answered by Durga. When questioned, Durga said that Basavanna Gorawar had to leave urgently, that he was not in a position to wait till Hanumantha Chikkappa arrived, and, therefore, he went and remained at the level crossing to oblige Basavanna Gorawar. He (D. V. Patil) chastised Durga for doing that without permission. Basavanna Gorawar had not obtained his permission to leave the level crossing. If he had sought permission to leave the level crossing, he would have either refused permission or granted permission after securing another Gateman who was "OFF" duty. Durga also informed him that Hanumantha Chikkappa was expected any moment, that he (D. V. Patil) might send the key with him and that he would go to the points T-1 without any loss of time and attend to his work there. He also told that he would close the level crossing and be ready to go to the points T-1. He came out of the station office to get hold of Hanumantha Chikkappa or any other "OFF DUTY" man. At that time, Hanumantha Chikkappa came running with all sorts of excuses. He (D. V. Patil) scolded Hanumantha Chikkappa and handed over key 'B' to him with instructions to rush to the level crossing and hand over that key to Durga, so that he could come to points T-1 and set the points for the loop line. Hanumantha Chikkappa took key 'B', promising to carry out the instructions, and ran towards the level crossing. Immediately, he obtained line clear for No. 208 Express from Savanur. He took the token and handed over the same and the pouch to Siddappa. He then opened the key lock-up box, took key 'C' and the key of the padlock of the Down Loop Home signal lever, locked that box and came out. He then stood on the tool box and exchanged signal with the Pointsman at the points T-1. He then handed over key 'C' and the key of the padlock of the

Down Loop Home signal lever to Siddappa and asked him to operate the Down Loop Home signal lever. Siddappa unlocked the lever frame with key 'C' and pulled the lever for the main line and ran towards the loop line. At that time the train was sighted. The light beams of No. 208 had illuminated the Home signals and he saw that both the Home signals were still in the 'ON' position. Surprised at this, he jumped from the tool box and saw that the main line lever had been pulled. Immediately, he put back the said lever to the normal position. The train, which was then near the gate signal, steamed in at great speed. He saw the train shake as it came near the points. When he saw the train entering the main line, he started shouting at the top of his voice and he also changed his hand signal lamp to danger, raised it above his head and waved it. He continued to shout asking the passengers of No. 215 to come down from the train. At that time No. 208 struck No. 215 with a thundering sound.

5.4.5. At that juncture, E. K. S. Pullay (W.8), ASM, who was "OFF DUTY", came to the station and took charge. He (D. V. Patil) went out and secured petromax lights and the assistance of a local doctor and the villagers. He also arranged for distribution of water. The TI (Traffic Inspector), Harihar, came in the early hours of 20th March, 1968 and served him with an order of suspension.

5.4.6. D. V. Patil submits he had discharged his duties to the best of his ability and he had followed all the rules.

Case of Siddappa Hanumappa, Middle Duty Pointsman, Yalvigi

5.5.1. From 20-00 hrs. on 19th March, 1968 he was on duty at Yalvigi station as Middle Duty Pointsman and he was relieved at 08-00 hrs. on 20th March, 1968.

5.5.2. On 19th March, 1968, No. 215 arrived at Yalvigi at 21-51 hrs. or 178 minutes late. The said train was received on the main line. At about 22-25 hrs., ASM on duty told him that there would be crossing for No. 208 Express and that he should inform the Gateman at Km. 423/2 to close the level crossing. He went into the SM's office and informed the Gateman on the phone about the expected arrival of No. 208 and came back to the ASM. He found the ASM agitated and searching for the Pointsman on duty at points T-1. The ASM asked him to search for Hanumantha Chikkappa. At that moment, he saw Hanumantha Chikkappa walking on the platform and he pointed him out to the ASM. The ASM called Hanumantha Chikkappa and gave him key 'B'. At that time the light of No. 208 Express was visible at a distance. The ASM became panicky and told him (Siddappa) to take the outgoing token to exchange with No. 208, that on the way he should inform the ASM about the correctness of the "UP" points and then proceed to the loop line. The ASM told him that he himself would operate the lever in the Ground Lever Frame.

5.5.3. He ran towards the Harihar end of the platform with the token pouch given by the ASM and the torch. After moving over a distance of about 25 yards from the place, where the ASM was standing, he saw, from the point indicator, that the points T-5 were set for the loop line and conveyed this information to the ASM, who acknowledged the same. He then went to the loop line and waited there for No. 208 Express. In 2 or 3 minutes, he saw No. 208 Express approaching and from its light he found that the main line Home signal at the Hubli end was lowered. Realising that No. 208 Express would also come on the main

line, where No. 215 was standing, he became afraid and started shouting to the passengers of No. 215 cautioning them as to their safety. There was no time to contact the ASM, who was on the platform. By then No. 208 came and collided with No. 215 Passenger.

5.5.4. He then started helping the injured people. After some time, the ASM came to him and asked him to state that he (Siddappa Hanumappa) pulled the main line lever and he assured that nothing would happen to him (Siddappa) since the accident was due to the fault of the Down Pointsman. As he had to obey the ASM and as he had lost his power of judgment due to shock, he agreed to what the ASM told him. In these circumstances, he (Siddappa Hanumappa) subsequently gave a written statement to the officers.

Case of Durga, Pointsman, Yalvigi

5.6. On 19th March, 1968, Durga (W. 36) reported for duty at 20-00 hrs. D. V. Patil, ASM on duty, asked him to go to the level crossing at Km. 423/2, attend to the duties of the Gateman and relieve Basavanna Gorawar, as Gateman Hanumantha Chikkappa had informed him through phone from Savanur that he would be coming to Yalvigi by No. 215 Birur-Hubli Passenger and requested him (D. V. Patil) to send some one to the level crossing in his place. Accordingly, he (Durga) went to that level crossing and relieved Basavanna Gorawar. After going to that level crossing, he performed the duties of the gateman as per the instructions of the ASM, when No. 203 Bangalore—Poona Express passed through. Subsequently, D. V. Patil instructed him to remain at the level crossing as the crossing of No. 215 Birur-Hubli Passenger and No. 208 Deccan Express would take place at Yalvigi. He was ordered by the ASM not to leave the level crossing till Hanumantha Chikkappa came there and relieved him. After some time, he received instructions from D. V. Patil on the phone that Deccan Express had already left Gudgeri and that he should close the level crossing. Accordingly, he closed the level crossing and waited for the arrival of Deccan Express. The said train passed through the level crossing after some time. A few minutes later, he heard a big sound from the side of the station. He could not leave the level crossing as No. 215 Birur-Hubli Passenger had yet to pass through. A few minutes later, Hanumantha came running to the level crossing. He asked him (Hanumantha) about the sound he (Durga) had heard. Hanumantha said that he did not know the reason for that sound. After handing over charge to Hanumantha, he came to the station and saw the collision between No. 215 Birur-Hubli Passenger and No. 208 Deccan Express. In the SM's office, both the ASMs, D. V. Patil, and E. K. S. Pullay, were present. He also took part in the rescue operations. Durga submits that he had done his duty as per the orders of the ASM on duty. He does not know how the accident took place.

Case of H.K.T. Iyengar, Guard of No. 208 Express

5.7. H. K. T. Iyengar was the Guard of No. 208 Deccan Express on 19th March, 1968 from Hubli. The train, which left Hubli at 21-25 hrs. passed through Gudgeri at 22-22 hrs. As the train was proceeding towards Yalvigi, he observed that the Outer signal was lowered and the level crossing had been closed. Further, he observed that the Home signal had been lowered for the main line. After observing the Home

signal, he was watching for the "All right" signal of the SM. Immediately, he heard a big noise. There was a jerk, the train stopped and he fell down. After getting up, he applied the hand brake and lighted the hand signal lamp, which had been put out due to the jerk. Then he went to the station and observed the collision. Immediately, he informed the Section Controller of the accident. He brought out the first-aid-box and with the aid of two doctors, who were travelling by No. 208 Express and the local doctor who joined later, first-aid was given to as many injured persons as possible. When he enquired of the ASM D. V. Patil, the reason for giving the signal for the main line, when a train was already standing there, D. V. Patil told him that Siddappa gave the signal for the main line without his permission. H. K. T. Iyengar submits that he had performed his duties to the best of his ability.

Case of S. B. Harnahalli Driver of No. 215 Passenger

5.8. After describing the onward journey of No. 215 from Birur and giving the reasons for the delays, S. B. Harnahalli (W. 38) has narrated the events at the time of the accident. No. 215 arrived at Yalvigi at 21-50 hrs. and was detained at Yalvigi. He was now and then observing the signals. He could see from the white back lights of the Home signals that they were in 'ON' position. As there was prolonged detention at the previous station as also at Yalvigi, he felt the need to safeguard against shortage of water. After ensuring that the headlight of his engine was burning dim and other things on his engine were normal, and after handing over charge to his First Fireman, Muniswamy, he went to the SM's office to request for water. D. V. Patil, ASM, was in the office. A constable, who had brought a boy inside the office, was engaging the ASM. Some people were discussing with the ASM about parcels. The ASM went near the tea stall to see the point indicator at the Harihar end. A passenger also came for a ticket. Hence the ASM could not give any attention to him (S. B. Harnahalli) and he had to wait in the office. After some time, the ASM consulted the Section Controller regarding supply of water and then told him that a memo had to be given, if water was required. On further enquiry, he was assured by the ASM that there would be no further detention. Thereafter, he and the ASM came out of the office. Siddappa was standing near the Ground Lever Frame. The ASM shouted to Siddappa that the signals were not lowered even though the light of the train was visible. Then the ASM jumped on to the tool box near the Ground Level Frame to observe the signals. At that time, he (S. B. Harnahalli) was moving towards the engine to have a clearer view of the signals since the view of the signals was obstructed by the formation of No. 215 due to the platform being on a curve. While he was still moving towards the engine, he heard the ASM stating that the Outer signal was lowered. As he was proceeding towards the engine, he heard a loud noise and found that No. 208 had collided with No. 215. He immediately ran back to the Station Master's office to inform the Control of the accident. On his way back, he saw Siddappa holding the pulled lever and standing with his head resting on the lever. He also heard the ASM shouting inside the SM's office "IVARU NANNANNU KONDARU"—"THEY HAVE KILLED ME", "I deserve any punishment." Then he engaged himself in the rescue operations.

Case of S. Viswanath, Driver of No. 208 Express

5.9. S. Viswanath was the Driver of No. 208 Down Express from Hubli on 19th March, 1968. The train left Hubli at 21-40 hrs. D. Baliah,

Arumugam, H. K. T. Iyengar and Md. Barakallah were the First Fireman, Second Fireman, Guard and Brakesman of No. 208 Express respectively. When he approached the Down Outer signal of Yalvigi station, it was in the "OFF" position. As he approached the Outer signal, he reduced the speed of the train. As he passed the Outer signal, he sighted the Home signal and found that the Down Main Home signal was in the "OFF" position. When the train passed the level crossing, he moved from the right to the left in the cab to sight the track as well as the lighted torch to pick up the out-going token. The torch was not to be seen. He once again looked up at the Home signal. The Down Main Home signal was in the "OFF" position. Immediately, he came back to the right side of the engine thinking that he might over-shoot the station without picking up the outgoing token. He started further reducing the speed and continued to look out on the right hand side for the torch. As the engine was negotiating a curve, the front view was continuously changing. When the train neared the points T-1, all of a sudden from a particular point of the curve, he saw on the main line the smoke box of an engine without any smoke from the chimney. That engine had no headlight or side lights. Immediately after he sighted that obstruction, he jammed the brakes and pulled Arumugam by the pouch, which he was holding, and turned to his left and found Baliah opening the fire box. He shouted to Baliah to hold firmly. By that time, the collision took place. There was darkness in the engine. He sustained severe injuries but he was conscious. He got himself extricated from the jammed portion of the foot-plate and crawled out of the engine.

No statements filed by Hanumantha Chikkappa and Basavanna Gorawar, Gatemen, Yalvigi

5.10. Hanumantha Chikkappa and Basavanna Gorawar, Gatemen, had not filed their statements before the Commission.

CHAPTER VI

DISCUSSION OF EVIDENCE, FINDINGS OF THE COMMISSION AND THE STAFF HELD RESPONSIBLE

Recording of statements of certain railway staff of Yalvigi by Dos, Hubli on 20th March, 1968

6.1. Immediately after the accident, E. K. Shelva Pullay (W. 8), who was the ASM on "OFF DUTY" at Yalvigi railway station, went to the station from his quarter, which is situated about 20 metres from the SM's office. After observing what had happened, he informed the Mysore Control at about 22-40 hrs. of the accident and requested that Medical Relief Specials should be rushed from Hubli and Harihar. There is a record of this conversation in the Special Occurrence Book maintained in the Mysore Control Office. B. P. Shenoy (W. 1), DS, South Central Railway, Hubli, received the information conveyed by the Mysore Control at about 22-55 hrs. on 19th March, 1968. At about 23-20 hrs. B. P. Shenoy left Hubli with S. Veerabahu (W. 2), DSTE (Divisional Signal and Telecommunication Engineer), Hubli, K. Alala Sundaram (W. 4), DOS, Hubli, V. Ramakrishna Nair (W. 5), Stenographer to DOS, Hubli, T. M. Krishna Rao (W. 9), DEN (Divisional Engineer), Hubli and Cherian Thomas (W. 10), PWI (Permanent Way Inspector), Yalvigi, by a Medical Relief, Special. On reaching Yalvigi at about 00.45 hrs. on 20th March, 1968, B. P. Shenoy directed K. Alala Sundaram to seize

the train documents, to arrange for the despatch of the stranded passengers and to obtain the statements of the concerned railway staff of Yalvigi station. In accordance with the third directive, K. Alala Sundaram obtained the statements of D. V. Patil (W. 30), Siddappa Hanumappa (W. 32), Durga (W. 36), H.K.T. Iyengar, Md. Barackallah, S. B. Harnahalli (W. 38) and Biddadi Veerabhadrappe. K. Alala Sundaram and V. Ramakrishna Nair have stated that the statements of D. V. Patil, Siddappa Hanumappa, H.K.T. Iyengar and S. B. Harnahalli are in the handwriting of these witnesses. They have further stated that Durga and Biddadi Veerabhadrappe gave their statements in Kannada, that E. K. Shelve Pullay, ASM, translated the same into English sentence by sentence, that the same was recorded by V. Ramakrishna Nair, that after their statements were recorded, they were read over and translated to Durga and Biddadi Veerabhadrappe respectively and that thereafter these persons affixed their thumb impressions accepting their statements, to be correct.

Recording of further statements of certain railway staff by DOS, Mysore

6.2. B. V. Venkatesh (W. 6), DOS, Mysore, who was at Arsikere, received information of the accident at about 23-00 hrs. on 19th March, 1968. He left Arsikere at about 23-25 hrs. on 19th March, 1968 with T. R. Sundaramurthy (W. 7), Stenographer to DOS, Mysore, R.R. Badagi (W. 18), AME (Assistant Mechanical Engineer), Mysore, and the DMO, Mysore, who were all camping at Arsikere. On reaching Yalvigi at about 05-00 hrs. on 20th March, 1968, K. Alala Sundaram handed over the seized train documents and the statements of the six railway staff mentioned in para 6.1 to B. V. Venkatesh. He, after going through the statements obtained further clarifications from D. V. Patil, Siddappa Hanumappa and Durga on 20th March, 1968 and from H.K.T. Iyengar, Md. Barackallah, Biddadi Veerabhadrappe and S. B. Harnahalli on 21st March, 1968. These further clarifications have been recorded in the form of questions and answers. These questions and answers will be referred to hereafter as 'further statements' for the sake of convenience. On 21st March, 1968, B. V. Venkatesh recorded the statement of R. Dasarathy (W. 23), ASIMM, Yalvigi, and the statement of Hanumantha Chikkappa, Gateman, Yalvigi. So far as these two persons are concerned, their statements as given by them were first recorded and thereafter B. V. Venkatesh put questions to them and recorded both the questions and their answers. K. Seshadri Guard of No. 215 Passenger, had given a typed statement to DOS, Mysore, through the SM, Arsikere. After receipt of this statement, B.V. Venkatesh put questions to K. Seshadri and recorded his answers. During the course of recording the statement of Hanumantha Chikkappa, B. V. Venkatesh called Basavanna Gorawar and Durga, put questions and recorded the questions as well as the answers given by them.

Procedure adopted for recording further statements of staff not knowing English

6.3. B. V. Venkatesh has given evidence that he knows Kannada, that he put questions to Siddappa Hanumappa, Durga, Biddadi Veerabhadrappe and Hanumantha Chikkappa in Kannada, that they gave their answers in Kannada, that the questions and answers were translated by him into English and recorded in that language, that the statements were

read out and translated to these persons and that they signed or affixed their thumb impressions on their statements after accepting their correctness. T. R. Sundaramurthy, Stenographer to the DOS, Mysore, has corroborated the evidence of B. V. Venkatesh regarding the recording of these statements. He has stated that he read over the 'further statements' of Siddappa Hanumappa and Durga. It is in the evidence of B. V. Venkatesh and T. R. Sundaramurthy that the statements of Hanumantha Chikkappa, Basavanna Gorawar and Biddadi Veerabhadrappa were read over and explained in Kannada by B. Puttaswamy, TI, Birur, and that these three persons signed or affixed their thumb impressions on their statements after accepting the correctness of the same. It is also in their evidence that B. Puttaswamy has made an endorsement on the statements of these three persons regarding the fact of reading over and interpreting the statements in Kannada.

Significance of earliest written versions of staff

6.4. The statements and 'further statements' referred to in the preceding paragraphs 6.1 to 6.3, viz., the statements obtained by K. Alala Sundaram and B. V. Venkatesh are the earliest written versions, which the concerned staff gave within two days, mostly within a few hours, after the accident and as such they have much significance in arriving at a proper conclusion regarding the cause of the accident and the persons responsible for the same. The contents of these statements will be referred to at appropriate places, while analysing the evidence on record.

Argument that statements are not genuine not tenable

6.5.1. At this stage, the attack made against the genuineness or otherwise of these statements and 'further statements' will be considered. An attempt has been made in the cross-examination of K. Alala Sundaram by Sri V. Ramaswamy and Sri K. Santhosh Hegde to show that D. V. Patil and Siddappa Hanumappa were not in a proper state of mind when their statements were obtained. K. Alala Sundaram has clearly stated that D. V. Patil and Siddappa Hanumappa were not in an agitated or dazed state of mind when they gave their statements. It is in the evidence of K. Alala Sundaram that the recording of the statements was commenced at about 3-45 hrs. on 20th March, 1968, that, by that time, the two relief trains containing the stranded passengers had already left Yalvigi, that several of the injured persons had already been removed to the hospitals and that the atmosphere at the railway station was quite orderly. He has also stated that he was satisfied that they were in a fit condition to give their statements. In view of this evidence of K. Alala Sundaram and in view of the fact that there was an interval of nearly five hours between the time of the accident and the time at which the recording of the statements commenced, it is highly improbable that either D. V. Patil or Siddappa Hanumappa were in an agitated or dazed state of mind, when they gave their statements to the DOS, Hubli. To a question put by Sri K. Santhosh Hegde, V. Ramakrishna Nair (W. 5) has also stated that Siddappa Hanumappa was not nervous when he gave his statement to the DOS, Hubli. It is also on record that Siddappa Hanumappa continued to perform his duties after the accident and his services were utilised to pilot the first Medical Relief Special from Hubli on to the loop line. D. V. Patil also claims that he was engaged in relief operations for some time. Considering the evidence on record, we are satisfied that all the persons including D. V. Patil and Siddappa Hanumappa, who gave statements to K. Alala Sundaram, were in their normal

state of mind at that time. Even if these persons were agitated to some extent, which is understandable, there is no reason to believe that the statements given by them at that time were incorrect or false, unless they deliberately gave distorted versions. Considered from any angle, we are satisfied that the statements referred to were given by the concerned staff, when they were in a fit condition of mind.

6.5.2. In regard to the 'further statements' and the statements obtained by B. V. Venkatesh, it has been suggested to B. V. Venkatesh by Sri K. Santhosh Hegde, during cross-examination that he did not take the statement of any member of the Yalvigi staff and that he had prepared and signed the statements subsequently. The witness has emphatically denied this suggestion. Barring this bald suggestion, there is no material on record to question the genuineness of these statements. To a question put by the Learned Counsel for D. V. Patil, B. V. Venkatesh has said that the sentence in the D. V. Patil's statement viz., "I saw Home and Outer was lowered for main line", was not an answer to any specific question put by him, that the said answer was a part of the answer to question No. 2 and that the said answer was not prompted by him (B. V. Venkatesh). Considering the evidence of B. V. Venkatesh and T. R. Sundaramurthy, we are satisfied that the statements and further statements recorded by B. V. Venkatesh are true records of what the concerned staff stated and that the attack made against these documents is baseless.

Knowledge of rules and declarations

6.6.1. B. V. Venkatesh has deposed that these Station Working Instructions were prepared by the DOS and the DASTE (Divisional Assistant Signal and Telecommunication Engineer), Hubli. It is also in the evidence of B. V. Venkatesh that the staff concerned with train passing duties at railway stations must be fully conversant with the relevant Station Working Instructions. The Station Working Instructions contain detailed instructions regarding the working of Yalvigi railway station and in particular about receiving, despatching and crossing of trains, and closing of level crossing gates. According to the Southern Railway S.R. 175, the members of the station staff dealing with movement of trains should sign a declaration for having read and understood the rules and it is the duty of the SM to explain the rules in the regional language to such of those members of the Class IV staff, who do not understand English, and such members should, after understanding the rules, sign a declaration to that effect in the regional language or affix their thumb impressions.

6.6.2. The Southern Railway have produced two registers containing such declarations. One register contains the declarations made by Class III staff and the other contains the declarations made by Class IV staff of Yalvigi railway station. B. V. Venkatesh has stated that these registers contain the declarations given by D. V. Patil, E. K. Shelva Pullay, Siddappa Hanumappa, Biddadi Veerabhadrapa, Durga, Hanumantha Chikkappa and Basavanna Gorawar respectively.

6.6.3. It is not the case of any member of the railway staff to whom individual notices were issued as mentioned in para 1.8 of Chapter I of this Report, that they were not fully conversant with the General and Subsidiary Rules or the Station Working Instructions concerning their duties. It can, therefore, be taken that all the members of the

staff, who were on duty at the time of the accident, were fully conversant with the relevant rules relating to their duties.

Staff on duty at the time of the accident at Yalvigi and on trains involved

6.7. From the statements filed in this case by the Railway as well as some of the railway employees and from the evidence on record, it is established that the following persons were or had to be on duty at Yalvigi railway station and on Nos. 208 Poona-Bangalore Deccan Express and 215 Birur-Hubli Passenger, at the time of the accident:—

I. At Yalvigi Railway Station:

- (a) D. V. Patil, ASM.
- (b) Siddappa Hanumappa, Middle Duty Pointsman.
- (c) Biddadi Veerabhadrapa, Pointsman at points T-5.
- (d) Durga, Pointsman at points T-1.
- (e) Hanumantha Chikkappa, Gateman at the level crossing at Km. 423/2.

II. No 208 Express:

- (a) S. Viswanath, Driver.
- (b) D. Baliah, First Fireman.
- (c) Arumugam, Second Fireman.
- (d) H. K. T. Iyengar, Guard.
- (e) Md. Barackallah, Brakesman.

III. No. 215 Passenger:

- (a) S. B. Harnahalli, Driver.
- (b) V. Munuswamy, First Fireman.
- (c) K. Thangavelu, Second Fireman.
- (d) K. Seshadri, Guard.

6.8. We may now go into the factors, which might have led to the accident.

Failure of permanent way not a cause

6.9.1. There is no evidence to show that there was any defect in the track, which could have caused the accident; on the other hand there is positive evidence to show that the track including the points and crossing were in good condition and the accident was not on account of any defect in the permanent way.

6.9.2. T. M. Krishna Rao (W. 9), DEN, Hubli, who accompanied B. P. Shenoy (W. 1) in the first Medical Relief Special, within a very short time after reaching Yalvigi, examined the track towards Hubli from the place where the engine of No. 208 had capsized. His evidence is that the track beyond the third bogie of No. 208 towards Hubli side was in sound condition. The track, where the engine of No. 215 was standing, had been slightly lifted up and shifted sideways away from the platform and the track further on to a distance of about 60 metres towards Hubli side had been shifted away from the platform and sleepers had become bent. His evidence discloses that this length of 60 metres towards Hubli side was the place where the engine and the first three coaches of No. 208 had capsized. He had examined the rails, sleepers

and track fittings on the undisturbed portion of the main line towards Hubli side and they were all in good condition. There were no extraneous marks on the sleepers. He has stated in cross-examination that there were no defects in the track which could have caused the accident.

6.9.3. Cherian Thomas (W. 10), PW1, Yalvigi, who checked the track in the rear of the formation of No. 208 upto the points T-1 and who took the measurements of the track and made a note of it, states that the track was in sound condition and that there were no defects. He has also indicated that he did not notice any defects in the track during his weekly inspections on push trolley and that neither the Gangmate nor the Keyman had brought any defects in the track to his notice. On 20th March, 1968, C. K. Viswanatha Iyer (W. 11), PW1, Ranebennur, took the track details of the main line for a distance of 1000 feet from the rear bogie of No. 208 and made a note of his readings. He has stated that the gauge between the rails was neat or within permissible limits of variation. From the evidence of these three witnesses (W. 9, 10 and 11), it is clear that there was nothing wrong with the track and that the damage to the track at the place where the engines of Nos. 215 and 208 and the first 3 bogies of No. 208 had capsized was a result of the accident.

6.9.4. S. Veerabahu (W. 2), DSTE, Hubli, T. M. Krishna Rao (W. 9), Cherian Thomas (W. 10), who checked the points and crossings on 20th March, 1968 after the accident, have stated that there was no damage to the points and crossing assembly at points T-1. E. K. Shelva Pullay, who came to the station immediately after the accident, has also stated that he checked the points T-1 and T-5 and found them in good condition. Cherian Thomas has further stated that he had made a detailed inspection of the points and crossings on 23rd January, 1968, along with the Assistant Engineer, and that no defects in the points and crossings were noticed. The Assistant Engineer, who made the inspection on 23rd January, 1968, has made a note of it in the "Points and Crossings Inspection Register". Cherian Thomas has also stated that he inspected the points and crossings every quarter. The fact that the first Medical Relief Special from Hubli was piloted over the points to the loop line at about 00-55 hrs. on 20th March, 1968 confirms that they were in good condition. The evidence on record, therefore, makes it clear that the points and crossings were in sound condition and that the accident was not due to any defect in the points and crossings assembly at points T-1.

6.9.5. A faint suggestion was made during the inquiry that the points T-1 could have been set for the loop line and that No. 208 Express could have jumped from the track leading to the loop line to the main line over points T-1. T. M. Krishna Rao (W. 9) has explained in his testimony that there is no such possibility and, if there is a split in the points beyond the permissible limit, the train will derail within 10 to 20 feet of points T-1 leaving clear marks on the sleepers. No such marks were found. This suggestion of jumping is thus ruled out.

Failure of signalling and inter-locking equipment not a cause

6.10.1. S. Veerabahu (W. 2) states that, when he inspected the signals and signalling equipment after the accident, he found that the transmission wires from the Ground Lever Frame to the Down Main Home signals were cut due to the derailling of the coaches near the platform and that there was no other damage to the signalling and interlocking equipment at the station.

6.10.2. V. H. Umanatha Rao (W. 21), DASTE, Mysore, mentions that he inspected Yalvigi station on 21st March, 1968 and found no damage to the signalling and interlocking gear at the station, and in particular at points T-1, except the wire cut in the transmissions referred to in the preceding para. He also states that he inspected the station once a year, that no defects in the signalling and interlocking system at Yalvigi station were brought to his notice and that there were no defects in the signalling and interlocking system at Yalvigi.

6.10.3. R. Dasarathy (W. 23), ASIMM, Yalvigi has stated that, on 19th March, 1968, between 11-00 hrs. and 17-00 hrs., Murugesan, Signal Inspector, Harihar, inspected the signalling and interlocking equipment at the station and that no defects were found. The signalling and interlocking gear was in good condition. He has also mentioned that on 19th March, 1968 the equipment was greased and oiled, where necessary. R. Dasarathy reached the station almost immediately after the accident and he did not notice any defect in the signalling equipment except the breaks in the wire transmissions already referred to.

6.10.4. There was no case of signal failure or failure of interlocking equipment on 19th March, 1968 and the equipment functioned normally for the reception of No. 215 Passenger and the earlier trains. This is borne out by the absence of any entry relating to such failures in the "Signal Failure and Inspection Register" of Yalvigi.

6.10.5. During the course of cross-examination of V. H. Umanatha Rao, it has been elicited that there were occasional failures of the signalling and interlocking system at Yalvigi. On 21st July, 1963, the gate key was stuck up. On 22nd May, 1964, the Up Loop Home wire was found broken. On 27th October, 1964, the springs pertaining to the Down Outer signal were broken. On 1st October, 1965, one of the keys of the level crossing gate could not be extracted. On 27th December, 1966, the Down Loop Home signal could not be lowered due to the detector not acting properly. On 30th December, 1967, key "Q" could not be extracted from the points T-1. V. H. Umanatha Rao has stated that these defects were minor and normal and there was no risk for the movement of trains. No instances of dropping signals or possibility of contradictory signals being given at Yalvigi station have been brought to the notice of the Commission, nor is there any record of any such occurrence in the "Signal Failure and Inspection Register" of Yalvigi. The failures have been few and far between and their nature does not disclose any basic defect in the signalling installation at Yalvigi station or any neglect in the maintenance of the signalling and interlocking equipment. There is also no specific plea by any party of any defect in the signalling and interlocking installation at Yalvigi either on the date of the accident or round about that day. We are, therefore, satisfied that the signalling and interlocking installation at Yalvigi was in good condition and that the accident was not due to any defect or failure of the signalling and interlocking system.

Failure of rolling stock not a cause

6.11. S. Gopinath (W. 15), TXR, Hubli, has stated that he examined the formation of No. 208 Express at Hubli on 19th March, 1968 and satisfied himself that the braking system was in a satisfactory condition and then issued the Brake Power Certificate. There were no ineffective or

dummied vacuum cylinders in the coaches and adequate vacuum was created in the engine and Guard's brake van. J. Braganza (W. 28), CWI, Mysore, has also confirmed that his examination of the five undamaged coaches of No. 208 Express had shown that the braking system was in good working condition. The evidence of Frank Jamonie (W. 17), Supervisor, Out-going Engines, Hubli, shows that he examined the engine YP 2646 before it left the loco shed for working No. 208, and found it in good fettle. S. Viswanath (W. 40), Driver of No. 208, has not put forward any plea of any defect in the braking system or any other defect. After the train left Hubli, the train had almost come to a stop at Saunshi Down Outer and again at the station and no difficulty was experienced in controlling the train. The Engine Repair Book of YP 2646 does not also disclose any factor which could have contributed to the accident. John Douglas Robert (W. 16), the then AME/L, Hubli examined the engine of No. 208 after the accident on 20th March, 1968 and found the Driver's vacuum handle in the applied position i.e., the brakes were applied. It is, therefore, seen that the condition of the engine YP 2646 and the coaches of No. 208 Down Deccan Express and their braking system were good when the train left Hubli on 19th March, 1968 and on the run upto Yalvigi. From what we have discussed, it is clear that the accident was not due to any mechanical defect or failure of the rolling stock.

Sabotage ruled out

6.12. On the evidence available before the Commission, there is no material for suspecting sabotage. Though in the early stages of the inquiry, the Learned Counsel for D. V. Patil suggested to a few witnesses the possibility of sabotage, that theory was subsequently abandoned. There is no plea by any party that the accident was due to sabotage. Hence it will suffice to say that the material before us makes it clear that the accident was not due to any sabotage.

6.13. It is established that the accident was not due to factors discussed in the foregoing paragraphs. We shall now proceed to consider what other factors contributed to the accident.

Points T-5 set for loop line for No. 208 Express

6.14. There is no doubt in this case that No. 215 Up Birur-Hubli Passenger, which arrived at Yalvigi at 21-51 hrs. was received and berthed on the main line and that No. 208 Down Poona-Bangalore Deccan Express also came on the main line and collided with No. 215 at about 22-35 hrs. on 19th March, 1968. From the evidence of and the affidavits filed by D. V. Patil and Siddappa Hanumappa and from the statements given by Biddadi Veerabhadrappe before the DOSs, Hubli and Mysore, it is clear that Biddadi Veerabhadrappe, who was instructed by D. V. Patil to set the points T-5 for the loop line, for passing No. 208 Express, carried out the instructions. D. V. Patil has stated further in his evidence that he exchanged "All Ready" signal with Biddadi Veerabhadrappe for passing No. 208 Express on the loop line. Siddappa Hanumappa, however deposes that it was he who verified the setting of points T-5 for the loop line and conveyed the information to D. V. Patil. S. B. Harnahalli, Driver of No. 215, states on the other hand that the ASM exchanged "All Ready" signal with the Pointsman at T-5 from near the tea stall. Irrespective of whether "All Ready" signal was exchanged or not, it is clear that points T-5 were correctly set for the loop line for the passage

of No. 208 Express. This is also corroborated by the evidence of witnesses, who reached the station immediately after the accident, viz., R. Dasarathy (W. 23), ASIMM, E.K.S. Pullay (W. 8), ASM, and R. Govindaswamy (W. 41), Simm, Yalvigi.

Framing of Basic Issues

6.15. The very fact that No. 208 Down Deccan Express entered the main line at Yalvigi indicates that the points T-1, which ought to have been set for the loop line were not set and locked for that line. There is sufficient evidence to show that the lever pertaining to the Down Main Home signal in the Ground Lever Frame was pulled over, though there is dispute as to who actually pulled that lever. Whether the Down Outer and Down Main Home signals had or had not been lowered i.e., brought to the "OFF" position, for No. 208 Express, is another aspect in dispute. In the circumstances, the basic issues to be considered are:

- (i) Whether signals had or had not been lowered for No. 208 Down Deccan Express;
- (ii) Who was responsible for not setting the points T-1 for the loop line for No. 208; and
- (iii) Who actually pulled over the Down Main Home signal lever in the Ground Lever Frame?

Discussion of evidence on issue whether Signals were lowered for No. 208 Express.

6.16.1. The factors which go to show that signals had been taken off for No. 208 Down Deccan Express are: (i) The affidavit and evidence of S. Viswanath, Driver of No. 208 Express; (ii) The statements before the DOSs, Hubli and Mysore, and affidavit of H. K. T. Iyengar, Guard of No. 208 Express; (iii) Evidence of E. K. Shelva Pullay, 'OFF DUTY' ASM, who reached the station within a few minutes after the accident; (iv) Statements, affidavit and evidence of S. B. Harnahalli, Driver of No. 215 Passenger; (v) The statements of D. V. Patil and Siddappa Hanumappa given to the DOSs, Hubli and Mysore; and (vi) The documentary evidence in the shape of entries in the Mysore Control Chart and Special Occurrence Books maintained in the Divisional Control Offices at Mysore and Hubli. The only factor against such a conclusion being arrived at is the stand taken by D. V. Patil in his affidavit and testimony before the Commission. The main purport of the arguments advanced by the Learned Counsel for D. V. Patil is that the signals were in the 'ON' position though the Down Main Home signal lever was pulled in the Ground Lever Frame, and the Driver of No. 208 Express passed them at danger. The value to be attached to the various items of evidence concerning this aspect of the case will now be discussed. The testimony given by the Driver, S. Viswanath, will be referred to last.

6.16.2. H. K. T. Iyengar, Guard of No. 208 Express has categorically stated in his earlier statements to the DOSs, Mysore and Hubli, as well as in his affidavit filed before the Commission, that the Down Outer and the Down Main Home signals had been cleared for the reception of No. 208 Express at Yalvigi. The significant point to be noted in this connection is the consistency in the stand taken by him in all his statements. In the first statement given to K. Alala Sundaram, DOS, Hubli, early on the morning of 20th March, 1968, he has stated as under:

"ASM informed me Pointsman Sri Siddappa has lowered the signals to main line before he could go out and tell him (the

Pointsman) since he was issuing tickets. Sri E. K. S. Pillay, ASM/YLG, who was not on duty was also in the ASM's Office."

Again when further questions were put to him by B. V. Venkatesh, DOS, Mysore, on 21st March, 1968, he has stated as under, in answer to question No. 9:—

"I asked the ASM on duty as to how he had committed this accident. The ASM on duty replied that the Pointsman Siddappa pulled the lever before he could go out. The ASM said that because of this he might go to jail. Then I asked the ASM who Siddappa was. The ASM pointed out to the Pointsman who was standing nearby. Then I questioned the Pointsman that inspite of his service he had committed a mistake. The Pointsman did not reply. I asked one of the other person holding the Control telephone as to who he was. He replied that he is an OFF duty ASM and he had come to the station after the accident."

It is observed that the version given by the Guard, H. K. T. Iyengar, is corroborated by the evidence of E. K. Shelva Pullay (W. 8), who came to the station within a few minutes after the accident. This has been brought out in the cross-examination of this witness (E. K. S. Pullay) by the Learned Counsel for H. K. T. Iyengar. The relevant portion is reproduced below:—

"H. K. T. Iyengar questioned D. V. Patil in my presence as to how he could give signals for 208 to the main line when 215 was berthed on it. In answer D. V. Patil said that pointsman Siddappa gave signals for 208 for the main line. H. K. T. Iyengar put the questions to Siddappa also as follows: "How is it that you after so much experience have given the signal to 208 for the main line when 215 is standing on it". Siddappa did not give any reply. H. K. T. Iyengar asked me who I was. I told him that I was an off duty ASM and I have just come to the Station after the accident."

D. V. Patil (W. 30) has also admitted in his examination-in-chief as under:—

"After the collision the Guard of 208 came to me. He asked me what happened. I told him that Siddappa Hanumappa pulled the down main home signal lever and that I put it back. The guard also questioned Siddappa who did not give any reply."

He (D. V. Patil) has also admitted in his cross-examination by the Learned Counsel for H. K. T. Iyengar that, when the Guard of No. 208 Express spoke to him, the ASM, E. K. S. Pullay was also there. Siddappa Hanumappa has also admitted as under in his examination-in-chief:—

"By that time, the guard of 208 came, asked D. V. Patil as to how the accident occurred. Patil said that Siddappa gave the signal and therefore the accident occurred. The guard asked me how I with a long service to my credit, could commit such a mistake. I did not give any reply to him."

It is thus seen that, what has been stated by H. K. T. Iyengar has not only been consistent throughout but has been corroborated by the testimony of E. K. S. Pullay and accepted by D. V. Patil and Siddappa Hanumappa, though D. V. Patil tries to shift later to the position that he had only admitted to the Down Main Home signal lever being pulled and not to the signal arm being taken OFF.

6.16.3. The Learned Counsel for D. V. Patil has put forward the plea that the evidence of H. K. T. Iyengar should not be given credence for two reasons: (i) In the message conveyed by the Guard, H. K. T. Iyengar, to the Mysore Control as recorded in the Control Chart, no mention, that signals had been cleared, was made; and (ii) H. K. T. Iyengar is in the position of a co-accused and his evidence should not be believed without corroboration. So far as the first point is concerned, it is no doubt true that in the first information conveyed by the Guard of No. 208 Express to the Section Controller, Mysore Control, and which is recorded in the Control Chart, there is no mention of the position of the signals. It is to be noted that when a serious accident involving casualties takes place, the first reaction of anyone is to convey the information of the accident so that medical relief can be rushed and rescue operations started without delay. This is basically a human approach and it has to be accepted that the Guard, H. K. T. Iyengar, had discharged this responsibility. We do not, therefore, consider that there is any force in the argument that merely because no mention of the signals having been cleared was made in the first information conveyed by the Guard to the Section Controller, the evidence of H. K. T. Iyengar should be discredited. On the other hand, it has been shown that the consistent stand taken by him has been corroborated by several other witnesses including D. V. Patil and Siddappa Hanumappa. It will also be seen later that information with regard to signals having been cleared for No. 208 Express had been conveyed to the Control Office, Mysore, and recorded as such within a reasonable time after the accident. With regard to the second argument, it may be pointed out that the railway employees, who have been notified in these proceedings are not accused or co-accused and, therefore, there is no force in the argument that the evidence of any one of them should be discredited for want of corroboration.

6.16.4. E. K. Shelva Pullay, ASM, Yalvigi, came to the station within a few minutes after the accident. The first person he met was D. V. Patil. An extract from his evidence is reproduced below:—

"I met D. V. Patil first. He told me "Hinumantha Konda" "Sidda Kotta".* I asked D. V. Patil what led to the collision. He told me that train No. 215 was berthed on the main line and Train No. 208 was also signalled to the main line and the collision took place. I met D. V. Patil at the gate of my house. He was on his way to my house, when I first met him."

After observing the details of the collision and noticing from the point indicators that the points T-1 were set for the main line and points T-5 for the loop line, he again met D. V. Patil and questioned him. The relevant portion of his evidence is reproduced below:

"I asked him as to how he could signal No. 208 to the main line when it was already occupied by Train No. 215. He said that 'Train No. 215 was standing on the main line to cross Train No. 208. After some time No. 208 was blocked i.e., 208 could start from Gudgeri and come to Yalvigi. He had given permission for 208 to leave Gudgeri and come to Yalvigi. At this time some passengers demanded the issue of some passenger tickets. Then he opened the booking counter and started issuing the tickets. While he was issuing tickets Gudgeri gave 'out report' in respect of Train No. 208. He received the 'out report' and asked Siddappa Hanumappa

the middle duty pointsman to take the relevant keys from the key box in the Station House and to pass No. 208 on the loop line. Accordingly the said Siddappa Hanumappa took the keys and in turn handed over Key-B to Hanumanthappa Chikkappa asking him to receive No. 208 on the loop line." Then D. V. Patil further said that "he continued issuing tickets to passengers; after a while one lever was pulled over by Siddappa Hanumappa." After finishing booking D. V. Patil said that he locked the booking counter and came out of the office to see which signal was lowered for Train No. 208. He further said that he got up the SIMM tool box and saw the home signals. He said that "he noticed the main home signal lowered. He then hurriedly jumped on to the ground lever frame and put back the lever." But that it was too late and that the accident occurred. What I have stated above is the version given to me by D. V. Patil."

"Hanumantha Konda. Sidda Kotta".=

Hanumantha killed. Sidda gave the slip".

Immediately after this, E. K. S. Pullay informed Mysore Control that No. 215 Passenger and No. 208 Express had collided on the main line of Yalvigi station. The evidence of E. K. S. Pullay is thus quite positive but the Learned Counsel for D. V. Patil argues that his testimony should not be accepted for the following reasons: (i) E. K. S. Pullay had not, in the first instance, conveyed to the Mysore Control that signals had been cleared for the reception of No. 208 Express; and (ii) As his relationship with D. V. Patil had not been cordial on account of his (D. V. Patil's) refusal to accommodate him financially, he was interested in damaging his reputation. Here again, it has to be pointed out that the first reaction of any one in the position of E. K. S. Pullay is to arrange for immediate medical relief and for this purpose advise the Mysore Control to rush Medical Relief Specials. This responsibility he had discharged and there is a record of his conversation with the Mysore Control Office in the Special Occurrence Book maintained there. E. K. S. Pullay has, however, further stated in his evidence as under in the cross-examination by the Learned Counsel for D. V. Patil:—

"By the time, I contacted the Mysore Control, I had talked with D. V. Patil and had also seen the scene of the accident. I do not remember the exact terms of the message I conveyed to the Mysore Control. I mentioned the cause of the accident in the message."

It is observed from the entries made by the Section Controller, Mysore Control Office, K. Kotilingam, that E. K. S. Pullay had informed the Control that signals had been taken 'OFF' for No. 208 Express. It has been recorded in the Mysore Control chart at 23.00 hours that No. 208 Express was given a pass through on the main line as informed by E. K. S. Pullay. The word "was given a pass through" clearly indicate that the appropriate signals had been taken 'OFF' for No. 208 Express to pass through the station. It is also seen that E. K. S. Pullay had conveyed similar information directly to the Assistant Operating Superintendent (Movement), Mysore, at about 00.00 hours, indicating that signals had been cleared for No. 208 Express. Apart from this, the Commission had also observed that, in Hubli Control Office, information had been recorded at 22.55 hours that No. 208 Express was received on signals on the main line at Yalvigi, while it was occupied by No. 215 Passenger. It is, therefore, clear that, even if E. K. S. Pullay had not

conveyed the cause of the accident in the first instance, when he spoke to the Mysore Control Office, he had made the position clear in subsequent conversations within a few minutes thereafter. We have, therefore, no hesitation in rejecting the plea of the Learned Counsel for D. V. Patil that, merely because the first information conveyed by E. K. S. Pullay did not mention the cause of the accident, his subsequent evidence and statement should be discredited. With regard to the second argument that the evidence of E. K. S. Pullay should be discredited because of his strained relationship with D. V. Patil, it is sufficient to record that there is no material before the Commission to support this plea and it is most improbable that E. K. S. Pullay would come forward to depose in the manner he had done merely to spite D. V. Patil. On the other hand, the evidence of E. K. S. Pullay is corroborated by what H. K. T. Iyengar has stated and the entries in the Mysore Control Chart and the Special Occurrence Books maintained in the Hubli and Mysore Control Offices. It is to be noted that the first person to whom D. V. Patil runs for help immediately after the accident is E. K. S. Pullay, who also speaks to the Assistant Operating Superintendent (Movement), Mysore, for relieving D. V. Patil from his duties. The contention that E. K. S. Pullay is inimically disposed towards D. V. Patil is thus untenable.

6.16.5. S. B. Harnahalli Driver of No. 215 Passenger has stated in his evidence before the Commission that, when he was proceeding from the SM's office to his engine after being told that he should give a memo for water, if required, he heard D. V. Patil saying that the Outer signal had been cleared for No. 208 Express. This implies that one of the Home signals had also been lowered for the reception of No. 208 Express. In view of the fact that points T-1 were not set for the loop line and D. V. Patil admits that the Down Main Home signal lever in the Ground Lever Frame had been pulled, we conclude that the Down Main Home signal had been lowered. The Learned Counsel for D. V. Patil has argued that the evidence of S. B. Harnahalli should not be relied upon as he had not said anything about D. V. Patil shouting that the Outer signal was lowered in his earlier statements to the DOSs, Hubli and Mysore, S. B. Harnahalli has given the explanation that in his earlier statements he had only mentioned about what he did and that he did not make any reference to Siddappa Hanumappa or to his having heard D. V. Patil shouting that the Outer signal was lowered as no specific questions were put to him on these points and that he was waiting for a regular enquiry for giving full details of his knowledge of the accident. We cannot accept the contention that the absence of any reference to the shouting by D. V. Patil about the lowering of the Outer signal and the absence of any reference to Siddappa Hanumappa in the earlier statements of S. B. Harnahalli could be a ground for disbelieving the evidence given by him before this Commission. On the other hand, in his earlier statement to DOS, Mysore, D. V. Patil has accepted that the Down Outer signal had been cleared for No. 208 Express, which is consistent with the stand taken by S. B. Harnahalli. There is no material to show that there is any ill-will between D. V. Patil and S. B. Harnahalli. It is, therefore, to be concluded that the criticism levelled against the evidence of S. B. Harnahalli has no substance. The value to be attached to his deposition before the Commission has to be assessed in relation to other evidence before the Commission as outlined in the preceding paragraphs. We have, therefore, no hesitation in accepting the evidence of S. B. Harnahalli on this aspect.

6.16.6. D. V. Patil has stated in his statement before DOS, Hubli that he blocked the Yalvigi-Gudgeri section for passing through No. 208

Express at 22.30 hours and was issuing tickets for No. 215 Passenger, when Middle-Duty Pointsman Siddappa Hanumappa pulled over the "Main line lever". By the time he went out, saw the lever and put it back, the train was approaching very fast and collided. In his answer to question No. 2 put by B. V. Venkatesh, DOS, Mysore, on 20th March, 1968, D. V. Patil has said "I saw Home and Outer was lowered, for Main line. I jumped from the elevated box and shouting that main line signal was given, I put back the levers to normal. Within that time train came and collided." Again in answer to question No. 10 put by the DOS, Mysore, D. V. Patil states that if he had verified personally the setting of the facing points for the reception of No. 208 Express, prior to handing over keys to Siddappa Hanumappa, the accident would have been averted. Apart from the reference to the Outer signal, which clinches the issue regarding lowering of signals, it has to be pointed out that, at the earliest point of time when the statement of D. V. Patil was recorded, he was in a chastened mood after the accident and was inclined to state the facts. The Commission has not accepted the plea that D. V. Patil was not in a fit state of mind when he gave these statements and, therefore, it follows that D. V. Patil would not have admitted to having seen the Home and Outer signals being 'OFF' for the main line, if the facts had been otherwise. It is only in the proceedings before the Commission that D. V. Patil has attempted to show that he did not make such a statement before B. V. Venkatesh. We cannot persuade ourselves to believe that B. V. Venkatesh would record anything in the statement other than what was stated by D. V. Patil, who has signed the statement. The Commission, therefore, attaches great value to the initial statements of D. V. Patil, which in the light of the evidence tendered by H. K. T. Iyengar, E. K. S. Pullay and S. B. Harnahalli, stand corroborated. On the other hand, the Commission finds it difficult to accept the later versions given by D. V. Patil in his affidavit as well as in his testimony as his evidence is contradicted by actual site conditions and the Commission's own observations at Yalvigi as outlined in Chapter IV. D. V. Patil has asserted that he had exchanged "All Ready" signal with the Pointsman on duty at points T-1 by standing on the tool box. The Commission observed that it would normally be difficult for any one to climb on to the top of the tool box and secondly he could not exchange "All Ready" signal with the Pointsman at points T-1 with a train on the main line, as the view was obstructed. His evidence, that on seeing the approaching head light of No. 208 Express he had shouted to Siddappa Hanumappa to take off signals, does not also appear to be correct as the Commission could not see the approaching head light until the train was almost near the Down Outer signal in which case it would not have given sufficient time to D. V. Patil to follow the procedure prescribed for taking off signals. D. V. Patil has also mentioned in his later version before the Commission that, while he went on to the top of the tool box to observe the signals being taken off for the reception of No. 208 Express, he did not actually see the aspect of the signals, as in the meantime, he observed the wrong lever being pulled and jumped down from the tool box to put back the wrong lever. In his affidavit, however, he has stated that, even after Siddappa Hanumappa had pulled the Down Main Home signal lever in the Ground Lever Frame, he found both the Home signals in the danger position. These varying stands are unbelievable. It has to be pointed out also, that, if signals had not been given for No. 208 Express, it would be natural to expect that D. V. Patil would have himself informed the Mysore Control Office and others that the Driver had passed signals at 'Danger'. There is no evidence that any such action had been taken at any time. This aspect has been emphasised also by the Learned Counsel for S. Viswanath in his arguments.

6.16.7. Siddappa Hanumappa, Middle Duty Pointsman, in his statements before the DOSs, Hubli and Mysore, had admitted that he pulled the lever for the Down Main Home signal instead of the Down Loop Home signal. He had also stated in answer to question No. 5 put by the DOS, Mysore, that he made a mistake in lowering the Down Main Home signal for the main line instead of the loop line. In his affidavit and in his evidence before the Commission, however, Siddappa Hanumappa takes the stand that he did not pull the Down Main Home signal lever in the Ground Lever Frame, but while he was standing between the main line and the loop line opposite to the station building to hand over the outgoing token to No. 208 Express, he observed, in the headlight of the approaching No. 208 Express, that the Down Main Home signal was OFF. The plea put forward by the Learned Counsel for Siddappa Hanumappa is that the original statements given by Siddappa Hanumappa were as dictated by D. V. Patil and should not, therefore, be given credence. It is difficult to accept this plea of Siddappa Hanumappa. On the other hand, Siddappa Hanumappa has, even in his statement before the DOS, Mysore, stated that Durga was sent to the level crossing at Km. 423/2 by the ASM D. V. Patil, which is not consistent with the statements of the latter. We have, therefore, to accept the varacity of the initial statements made by this witness also so far as clearance of signals for No. 208 is concerned.

6.16.8. The entries made in the Mysore Control Chart and the Special Occurrence Books at Mysore and Hubli have already been referred to while discussing the arguments of the Learned Counsel for D. V. Patil. These clearly indicate that signals had been cleared for the reception of No. 208 Express at Yalvigi. The fact that no allegation, that the Driver had passed signals at danger, was made, except before the Commission, indicates that the stand now taken is an after thought and no value can be attached to it.

6.16.9. The Driver of No. 208 Express, S. Viswanath, has consistently maintained that the Down Outer and Down Main Home signals were in his favour while approaching Yalvigi station and his version is supported by the evidence referred to in the foregoing paragraphs. The Learned Counsel for S. Viswanath has also pointed out that the efforts of D. V. Patil to show that he ran towards the approaching train shouting and waiving a red danger signal were due to his apprehension that a collision was inevitable on account of wrong signals being taken off. If the Home signals had been at danger as mentioned in his (D. V. Patil's) affidavit, it would not have been necessary for D. V. Patil to apprehend any danger. There is, therefore, no need to discuss the evidence of S. Viswanath any further with regard to the particular aspect of signals having been cleared for his train. In view of the foregoing discussion, we hold that the Down Home and Outer signals had been erroneously cleared for the main line for the reception of No. 208 Express and this was the cause of the accident.

Staff should have been on duty at level crossing at Km. 423/2 and points T-1 for 208 Express

6.17. The conclusion that signals were taken off for the reception of No. 208 Express at Yalvigi presupposes that, before the Down Main Home signal was lowered, key 'B' had been inserted in the appropriate hole in the stem of the Down Home signals post and turned. Until that was done, the Down Main Home signal could not come to the "OFF" position, even if the relevant lever in the Ground Lever Frame was pulled. When once it is established that the Down Main Home signal lever of the

Ground Lever Frame was pulled over and that the Down Main Home signal was also in the "OFF" position, the inescapable conclusion would be that the key 'B' was directly inserted in the stem of the Down Home signals post and turned by some person before the relevant lever in the Ground Lever Frame was operated, and that key 'B' was not at all used at points T-1 for setting them for the loop line. When it is found that the Down Outer signal had also been lowered, it becomes clear that the person, who was at the level crossing at Km. 423/2 must have closed the gates and inserted the gate keys in the two-lever frame and pulled lever No. 2, thus releasing his control on the Down Outer. It is also clear that the person who was at the points T-1 must have operated the Down Outer signal lever situated at the foot of the Down Home signals post. It is, therefore, seen that one person was on duty at the level crossing at Km. 423/2 and that there was another person on duty at the points T-1 and the person, who was on duty at the level crossing, at the relevant point of time, gave his control on the Down Outer. The persons who were on duty at the level crossing at Km. 423/2 and the points T-1 for No. 208 Express are now to be determined.

Determination of person on duty at level crossing at Km. 423/2 and points T-1 at the time of reception of No. 208 Express.

6.18.1. In accordance with the prescribed roster, Hanumantha Chikkappa had to relieve Basavanna Gorawar at 19-00 hours on 19th March, 1968 as Gateman at the level crossing at Km. 423/2. The contention of Hanumantha Chikkappa is that he relieved Basavanna Gorawar at 19.30 hours on 19th March, 1968 and he was on duty at the level crossing at the time of the accident. While recording the statement of Hanumantha Chikkappa, B. V. Venkatesh (W. 6) called Basavanna Gorawar, put questions to him and recorded the questions as well as the answers. It is seen there from that Basavanna Gorawar stated that Hanumantha Chikkappa relieved him at 19.25 hours on 19th March, 1968 and that Durga did not relieve him, though this is denied by Durga. It is to be noted that, even if these statements of Basavanna Gorawar and Hanumantha Chikkappa were to be taken as correct, Hanumantha Chikkappa was late by about half an hour in taking up duty. It is, however, seen from the testimony of D. V. Patil that Basavanna Gorawar was on duty at the level crossing not only for No. 220 Down which arrived at Yalvigi at 21.02 hours but also for No. 203 Up which passed through Yalvigi at 21.18 hours and for the anticipated departure of No. 215 at 21.54 hours.

6.18.2. Biddadi Veerabhadrapa has also told B. V. Venkatesh in his statement that when he went for duty at the station at 20.00 hours on 19th March, 1968, Hanumantha Chikkappa was also present at the station. It is impossible to accept this statement as there was no need for Hanumantha Chikkappa to leave the level crossing and come to the station, if he was really on duty at the level crossing, which has magneto telephone communication with the station.

6.18.3. Durga has stated that he took up duty as Pointsman at points T-1 at 20.00 hours on 19th March, 1968. In his earliest statement recorded by K. Alalasundaram on 20th March, 1968, Durga merely indicates that he was sent to man the level crossing at Km. 423/2 for No. 208 Express and that he was relieved by Hanumantha Chikkappa after the accident. In his further statement recorded by B. V. Venkatesh, Durga has stated that he was sent to man the level crossing at 20.00 hours as soon as he joined duty, as there was no Gateman on duty at the level crossing. He

further avers that he was at the level crossing for Nos. 220 Down Miraj-Bangalore Passenger and 203 Up Bangalore-Poona Express. The timings of these trains at Yalvigi as per the Mysore Control chart are as under:

No. 220 down	arrival 21.02	
	departure 21.22	
No. 203 Up	arrival ..	Pass through
	departure 21.18	

The chart indicates that no trains were dealt with at Yalvigi from about 18.20 hours till the arrival of No. 220 down at 21.02 hours. Durga states that he did not man the facing points T-1 for the reception of No. 220 Down and that he does not know who was on duty at points T-1. On the other hand, D. V. Patil mentions in his answers to questions Nos. 6 and 7 put by DOS, Mysore that it was Durga who manned the facing points T-1 for No. 220 Down and that he went of his own accord to the level crossing to oblige Basavanna Gorawar, who wanted to proceed by No. 220 Down to his native place. It is the plea of Durga that he went to man the level crossing as per the instructions of D. V. Patil in the absence of Hanumantha Chikkappa and that he was on duty at the level crossing when No. 208 Down came in. It is to be noted that after the arrival of No. 220 Down at 21.02 hours, there was sufficient time for Durga to reset points T-1, the trailing points for the passage of No. 203 Up Express, and proceed to the level crossing to relieve Basavanna Gorawar and for the latter to proceed to the station and leave Yalvigi by No. 220 Down.

6.18.4. D. V. Patil has said that Durga was at the level crossing at Km. 423/2, when he phoned to the gate lodge for arranging reception of No. 208 Express. In his first statement given to DOS, Hubli, D. V. Patil states that, when No. 208 left Gudgeri at 22.24 hours, he called for Durga but he was not available. In his answer to question No. 2 put by the DOS, Mysore, he has stated that Durga was not traceable. In his affidavit and testimony before the Commission, D. V. Patil states that he was surprised to find Durga at the level crossing, when he wanted to convey instructions regarding reception of No. 208 Down and scolded him for going of his own accord to the level crossing without his permission to relieve Basavanna Gorawar. D. V. Patil wants us to believe that Basavanna Gorawar had not taken his (D. V. Patil's) permission to be relieved of his charge in the absence of his authorised reliever Hanumantha Chikkappa. The variation in the statements of D. V. Patil even with regard to Basavanna Gorawar is to be noted. While in his statement on 20th March, 1968, he states that Durga relieved Basavanna Gorawar to enable the latter to go by No. 220 Down, which left Yalvigi at 21.22 hours, he changes his version in his testimony to the effect that Basavanna Gorawar was on duty at about 21.54 hours at the time of the anticipated departure of No. 215. Siddappa Hanumappa in answer to question No. 11 put by LOS, Mysore, states that D. V. Patil sent Durga to the level crossing as there was no Gateman and Hanumantha Chikkappa came only by No. 215 Up. It is highly improbable that Durga who had come on duty promptly at 20.00 hours would proceed to the level crossing and attend to Gateman's duties unless he was directed to do so by the ASM on duty. We have also observed from the bearing and demeanour of Durga that he is not the type who is likely to act on his own or disobey the instructions of his superiors. In view of the statement of Siddappa Hanumappa and the conflicting stands taken by D. V. Patil, we have no hesitation in concluding that D. V. Patil has asked Durga to proceed to the level crossing at Km. 423/2 and relieve Basavanna Gorawar.

6.18.5. K. Govindaswamy (W. 130), ASM, Savanur, has given evidence that, while No. 215 was detained at his station for the precedence of No. 203 Express and crossing of No. 220 Passenger, Hanumantha Chikkappa met him and requested him to inform the ASM, Yalvigi, that he (Hanumantha Chikkappa) would be reaching Yalvigi by No. 215 Birur-Hubli Passenger and that he conveyed this message to D. V. Patil through the block telephone. D.V. Patil has also confirmed receipt of this message conveyed by K. Govindaswamy in his evidence before the Commission though no reference is made to this fact either in his statements given to Doss, Hubli and Mysore or in the statement and the affidavit filed before the Commission. There is no reason to disbelieve the testimony of K. Govindaswamy, who is disinterested and is in no way connected with Yalvigi station.

6.18.6. In his affidavit, Siddappa Hanumappa has stated that in accordance with the instructions of D. V. Patil, he phoned to the gate lodge from the SM's office and informed the Gateman of the expected arrival of No. 208 Express and came back to the ASM and found the ASM agitated and searching for the Pointsman on duty at points T-1. He has added that at that time the ASM asked him to search for Hanumantha Chikkappa, that on his pointing out Hanumantha Chikkappa walking on the platform, the ASM called Hanumantha Chikkappa and gave him key 'B' to go to the points T-1. In his evidence before the Commission, however, Siddappa Hanumappa does not say anything about his phoning to the gate-lodge. He has deposed before the Commission that, about 15 minutes after the arrival of No. 215 Passenger the ASM told him about the crossing with No. 208 Express at Yalvigi and asked him to call the Pointsman on duty. The ASM had previously told him that Hanumantha Chikkappa was not on duty at the level crossing, that he would be coming by No. 215 Passenger and that he had sent Durga to the level crossing in the meantime. He has further stated that the ASM asked him to call Hanumantha Chikkappa from his house, that he called Hanumantha Chikkappa from the platform, that Hanumantha Chikkappa replied from his house that he would come shortly, that he (Siddappa) went back to the SM's office, that the ASM again told him that two or three minutes had elapsed after No. 208 left Gudgeri and asked him to call Hanumantha again, and that, as he was about to go out, the latter came to the station with a signal lamp. Thus, according to Siddappa Hanumappa, Hanumantha Chikkappa was not on duty, when D. V. Patil started making arrangements for receiving No. 208 Express and that some other person was to the gate lodge at that time. That person can only be Durga as deposed to by Durga and confirmed by D. V. Patil.

6.18.7. Apart from the recorded statement of Basavanna Gorawar, who avers to handing over charge of the level crossing at Km. 423/2 to Hanumantha Chikkappa at about 19-30 hrs. on 19th March 1968 the only person, who talks of Hanumantha Chikkappa being on duty at the level crossing at Km. 423/2 at the time No. 208 Express was dealt with is Hanumantha Chikkappa himself. This is not substantiated by the evidence of any other person, except that a suggestion is made by D. V. Patil in his affidavit and testimony that he had sent Hanumantha Chikkappa to the level crossing with instructions to hand over Key 'B' to Durga for arranging reception of No. 208. This aspect of the evidence of D. V. Patil will be discussed in paras 6.18.9 and 6.18.10. It is clear from the evidence of R. Govindaswamy (W. 13), D. V. Patil (W. 30) and Siddappa Hanumappa (W. 32) that Hanumantha Chikkappa arrived only by No. 215

Passenger at Yalvigi at 21.51 hrs. The recorded statement of Basavanna Gorawar is thus discredited and the statement of Biddadi Veerabhadrappa that he saw Hanumantha Chikkappa at the Station at 20.00 hrs is disproved.

6.18.2. In the cross-examination by the Learned Counsel for Hanumantha Chikkappa Siddappa Hanumappa has stated that his answer to question No. 11 put by DOS, Mysore is not correct as he had himself not seen Hanumantha Chikkappa coming by train No. 215 and that he only came to know that Hanumantha Chikkappa came by that train after D. V. Patil told him when the 'out report' had been received for No. 208 Express from Gudgeri. This change in the stand of Siddappa Hanumappa does not affect our conclusion that Hanumantha Chikkappa came by No. 215.

6.18.9. The varying stands taken by D. V. Patil with regard to the role assigned to Hanumantha Chikkappa, when No. 203 Express was dealt with, may now be discussed. In his earliest statement to the DOS, Hubli, D. V. Patil states that Durga "was not available and Hanumantha Chikkappa came forward and took key 'B' and went." There was no suggestion at this stage that D. V. Patil had issued instructions to Hanumantha Chikkappa to proceed to any place other than points T-1. In his answer to question No. 2 put by B. V. Venkatesh (W. 6), while recording his further statement on 20th March, 1968, D. V. Patil states: "Gateman Hanumantha Chikkappa came suddenly and said that he would go to set points for facing end. Accordingly he went. I told Siddappa, Middle Duty Pointman, who was by my side, that the Gateman has already gone to set the points". This is confirmed in answer to question No. 3 of the same statement. Siddappa Hanumappa also states as under in his earliest statement given to the DOS, Hubli on 20th March, 1968:

"The train was about to be sighted. Just then Gateman Chikkappa came to the station. The Station Master gave Hanumantha 'B' key and sent him to the point."

In his affidavit and testimony before the Commission, however, D. V. Patil changes his versions. He has stated as under in his evidence before the Commission:—

"Then I gave line clear to Gudgeri. Then I called all the pointsmen on duty. Biddadi Veerabhadrappa and Siddappa Hanumappa came. I instructed Biddadi Veerabhadrappa to set the point T-5 for the loop line and sent A-Key with him to enable him to set the point. I informed Siddappa Hanumappa that 203 would be crossing at the Station on the loop line and that he should be ready with the torch and also with the token punch. I also told Siddappa Hanumappa that Hanumanthappa Chikkappa had not come for duty yet and I asked him to get him. I telephoned to the gate lodge. I got response from Durga. I took objection to Durga being at the gate lodge and not turning up for his duty as pointsmen at point-T-1. Durgappa told me that Hanumanthappa Chikkappa had not yet turned up and he would go for his duty immediately after Hanumanthappa Chikkappa turns up. Then I told him that Train No. 208 was expected and he need not leave the gate-lodge and I will send the key-B with

Hanumanthappa Chikkappa to him and instructed him to take the key and then change the points at T-1 to the loop line, fix and lock it and exchange signals and arrange for the reception of the Train 208. He said he would act according to my instructions. I further instructed Durgappa to close the gates and then give the slot at the gate lever frame and then come to points T-1. I got the out report regarding train No. 208 from Gudgeri at about 22.25 hours. After I received the out report from Gudgeri Siddappa Hanumappa told me that Hanumanthappa Chikkappa was not to be found. Siddappa Hanumappa was complaining against Hanumanthappa Chikkappa and at the time Hanumanthappa Chikkappa came to me offering excuses for his absence. I reprimanded Hanumanthappa Chippakka. I took out the Key-B from the Key-Box in my office and gave it to Hanumanthappa Chikkappa asking him to give it to Durgappa and to inform Durgappa that he should set the points at T-1 and arrange for reception of Train No. 208 on the loop line which had left Gudgeri. Hanumanthappa Chikkappa took a lamp from the office and also the key and went towards the gatclodge. He had a chaddar on his shoulder. I went towards the points T-5 with a view to exchange signals with Biddadi Veerabhad-rappa. I then came towards the State, got up on the tool box and exchanged all ready signals with the person at points T-1."

D. V. Patil does not know whether Hanumantha Chikkappa carried out his instructions and went to the level crossing. On the other hand, it is not the case of Hanumantha Chikkappa as per his statement given to DOS, Mysore that he was on duty anywhere other than the level crossing. It is not his case that D. V. Patil gave him key 'B' for handing over to Durga at the level crossing and that he went to the level crossing with Key 'B', handed it over to Durga and sent him to points T-1 as per the instructions of D. V. Patil.

6.18.10. The plausibility of the revised stand taken by D. V. Patil may, however, be looked into in the light of the site conditions and the time and motion studies conducted by the Commission at Yalvigi. The time factor is very important. According to D. V. Patil, the out report for No. 208 was received at 22-25 hrs. but Hanumantha Chikkappa was not found for two or three minutes after that. The accident happened at 22-35 hrs. Within the interval freight minutes, therefore, Hanumantha Chikkappa was required to go from the SM's office to the level crossing, hand over key 'B' to Durga. Durga was to come to points T-1, set the points T-1 for the loop line, extract key 'Q' from the points, insert and turn it in the appropriate key hole in the stem of the Home Signals post exchange 'All ready' signal with the ASM and still leave about 2 minutes for the train to come through into the station without detention at the Down Outer. The distance from the station building to the level crossing is 751 metres and that from the level crossing to the points T-1 is about 440 metres. The studies conducted by the Commission disclose that a person walking at a normal pace will take about 9 minutes to go from the SM's office to the level crossing at Km. 423/2. At night, when conditions of visibility are not good, it may take slightly longer. Further it will take about 5 minutes for a person to come from the level crossing

to the points T-1. It will, therefore, be observed that if the programme of movement suggested by D. V. Patil is to be gone through in practice, it will require a minimum of about 15 minutes before the signals are cleared for the reception of No. 208 Express, as against only 6 minutes available in accordance with the evidence of D. V. Patil and Siddappa Hanumappa. The later version given by D. V. Patil that he had instructed Hanumantha Chikkappa to proceed to the gate and hand over Key 'B' to Durga, and Durga to proceed to points T-1 for arranging reception of No. 208 Express is not thus borne out by the time factor and site conditions, apart from want of corroboration from Hanumantha Chikkappa. In view of the time available, it is highly improbable that D. V. Patil would adopt the cumbersome procedure outlined by him in great detail in his affidavit and testimony. In the circumstances in which he was placed, it is natural and reasonable to expect D. V. Patil to send Hanumantha Chikkappa directly to the points T. 1. His later stand has, therefore, to be discarded as impracticable. It also shows that the person at the level crossing could not have had anything to do with the operation or non-operation of the points at T-1. In the light of the fact that Durga had been admittedly at the level crossing, when arrangements were being made for the reception of No. 208 Express, it is concluded that he continued to remain on duty at the level crossing at the time No. 208 Express steamed in and until he was relieved by Hanumantha Chikkappa after the accident. This is also borne out by the evidence of A. D. Nadaf (W. 44), who has stated that D. V. Patil instructed Hanumantha Chikkappa to go to points T-1 and after the arrival of No. 208 Express to proceed to the level crossing and relieve Durga. It is also the evidence of Durga that he was relieved by Hanumantha Chikkappa at the level crossing a few minutes after the accident. The slight change in the stand taken by Siddappa Hanumappa in the cross-examination by the Learned Counsel for D. V. Patil, that he did not see D. V. Patil give any key to Hanumantha and that he did not hear what instructions were given to Hanumantha Chikkappa, does not materially alter the position. Later in the cross-examination Siddappa Hanumantha has admitted that D. V. Patil told him subsequently that he had sent Hanumantha Chikkappa to points T-1.

6.18.11. One circumstance relied on by the Learned Counsel for Hanumantha Chikkappa to infer that it was Durga who was manning points T-1 and it was Durga who should have inserted key B directly in the stem of the Down Home Signals post instead of setting the points T-1 for the loop line, is the evidence of R. Govindaswamy (W. 41), SIMM, Yalvigi. This witness has in his statement given to the Signal Inspector, Harihar, on 1-4-68, stated that he came to the station within a few minutes after the accident and that while proceeding to check the condition of points T-1, he met Durga at the end of the rake of No. 208 Express about 106 metres from points T-1 and found that he had key 'B' with him. He took the key from Durga and verified that it was key 'B'. As to how Durga came to be in possession of key 'B' has to be considered. It is observed from the evidence of R. Govindaswamy, that immediately after hearing the sound of the collision, he dressed up and came to the station house. At the time he came to the station house, he noticed ASM, E. K. S. Pullay, was speaking on the Control phone. As E. K. S. Pullay had also come to the station within a minute or two of the accident and had made a preliminary inspection of the collision and the condition of points T-5 and T-1 before speaking to the Mysore Control, it may be

taken that at least 5 minutes would have elapsed by the time R. Govindaswamy came to the station. This is also proved by the entry in the Special Occurrence Book of the Mysore Control Office, which indicates that E. K. S. Pullay spoke at 22.40 hrs. and gave first information about the collision. Thereafter, R. Govindaswamy went near the tea stall to verify the setting of points T-5 from the point indicator, then retraced his steps, crossed over to the loop line in the gap in the formation of No. 215 Passenger and proceeded towards points T-1 along the loop line, when he met Durga about 106 metres from points T-1. It has been shown by the time and motion studies conducted by the Commission that R. Govindaswamy would have had to cover 400 metres from his house before meeting Durga with Key 'B' and that taking into account the steps near the station house and near the tea stall, it would have taken him about 6 minutes to cover this distance. In view of the fact that his own evidence discloses that when he came to the station he saw E. K. S. Pullay talking to the Mysore Control, it has to be inferred that, by the time he met Durga, 10 to 12 minutes would have elapsed. This time, according to the observations made by the Commission, was sufficient for Hanumantha Chikkappa to proceed from points T-1 to the level crossing and relieve Durga, who had innocently proceeded towards the station and met R. Govindaswamy about 106 metres inside the points T-1, Hanumantha Chikkappa, being a shrewd man, should have rushed to the level crossing immediately after the accident and handed over key B to Durga without explaining the cause of the sound or he should have left the key in the Home Signals post and Durga after being relieved by Hanumantha Chikkappa at the level crossing, should have taken out the key on his way to the station and met R. Govindaswamy with the incriminating key B in his possession. Had Durga been at the points T-1, he would have proceeded to the station immediately after the accident and reached the station building within about 4 to 5 minutes after the accident i.e. he would have been at the station house, when E. K. S. Pullay was talking on the Control phone and R. Govindaswamy had just arrived at the station. The testimony of R. Govindaswamy is consistent with the stand that Hanumantha Chikkappa, who was on duty at points T-1 and who had failed to set the points for the loop line, had enough time to proceed to the level crossing and relieve Durga, who had acted in the manner suggested above.

6.18.12. From the analysis given in the foregoing paragraphs, it is established that it was Hanumantha Chikkappa, who was on duty at points T-1 and who failed to set the points T-1 for the loop line but instead inserted key B directly in the appropriate hole in the stem of the Down Home Signals post, which rendered it possible for the Down Main Home signal lever being pulled, and the Down Outer lever being pulled, by Hanumantha Chikkappa and the corresponding signals being taken off for the reception of No. 298 Express. It is also established that Durga was on duty at the level crossing at Km. 423/2 not only when arrangements were being made for the reception of No. 208 Express but also till he was relieved by Hanumantha Chikkappa about 5 minutes after the accident. It is to be noted that Hanumantha Chikkappa is qualified in Pointsman's duties and, as admitted by D. V. Patil, has worked as Pointsman occasionally. It is abious that D. V. Patil has tried to give a distorted version in his affidavit and testimony before the Commission to escape the charge of having utilised a Gateman for discharging the duties of a Pointsman.

6.18.13. Sri J. G. Havanur, the Learned Counsel for Hanumantha Chikkappa has advanced several arguments to establish the innocence of

his client. The salient points of his defence are outlined with appropriate comments:

- (i) Sri L. G. Havanur relies on the statements of Basavanna Gorawar, Biddadi Veerabhadrappe and Hanumantha Chikkappa to prove that Hanumantha Chikkappa was on duty at Yalvigi by 20.00 hrs. on 19-3-68. In the absence of Hanumantha Chikkappa's statement being challenged by examination of Basavanna Gorawar and Biddadi Veerabhadrappe his client's plea that he had come on duty should be accepted. It has already been discussed and shown that no value could be attached to the statements of Basavanna Gorawar and Biddadi Veerabhadrappe in this respect.
- (ii) The Muster roll of 19-3-1968 of Yalvigi station indicates that Hanumantha Chikkappa was present. D. V. Patil has accepted that when he took up duty he had marked Hanumantha Chikkappa 'present' in the muster roll. It is the plea of the Learned Counsel that this documentary evidence should be taken to mean that Hanumantha Chikkappa was present at Yalvigi and had taken up his duties in time. It is to be noted in this connection that D. V. Patil has reported that Hanumantha Chikkappa arrived only by No. 215 Up Passenger and that he was not on duty at 20.00 hrs. The entry in the muster roll is, therefore, to be taken as a routine one in the expectation that Hanumantha Chikkappa would turn up for duty late if not at the scheduled time of 19.00 hrs. If No. 215 Birur-Hubli Passenger had arrived at Yalvigi on time, Hanumantha Chikkappa could have taken up his duties almost on time. There is, therefore, no force in this argument.
- (iii) The Learned Counsel for Hanumantha Chikkappa points out that E. K. S. Pullay did not question Hanumantha Chikkappa at any time even though he (Hanumantha Chikkappa) was on duty at the level crossing, when the first Medical Relief Special from Hubli was received, and D. V. Patil had mentioned that it was Hanumantha Chikkappa who was on duty at points T-1, when No. 208 Express was received. The Learned Counsel wants to infer from this that at that time E. K. S. Pullay had no reason to suspect the conduct of Hanumantha Chikkappa. This argument lacks substance as E. K. S. Pullay, on coming to the station, was more concerned with immediate relief operations and getting assistance from Harihar and Hubli, apart from keeping Mysore Control advised of the developments.
- (iv) The Learned Counsel refers to the evidence of P. V. Raman (W. 27) who is stated to have recorded a statement of Hanumantha Chikkappa, the contents of which were in his client's favour. The alleged statement is not before the Commission and the Learned Counsel for Hanumantha Chikkappa has not called for its production. The Commission cannot therefore, attach any value to this circumstance.
- (v) It is further contended that the evidence of K. Govindaswamy (W. 33) ASM, Savanur is not to be relied upon, as it is not corroborated except by that of D. V. Patil, who had not also mentioned the conversation on the block telephone with

K. Govindaswamy in his statements given to DOSs, Hubli and Mysore. An adverse inference should also be drawn from the failure on the part of the Railway Administration to examine Mahadevappa, pointsman, Savanur, who is reported to have witnessed the request of Hanumantha Chikkappa to K. Govindaswamy to inform the ASM on duty at Yalvigi about his late arrival by No. 215 Passenger. It is the plea of the Learned Counsel that Mahadevappa would have given evidence in favour of his client, if he had been examined. The Commission does not attach any importance to this argument as it was open to him to have examined Mahadevappa. There is no reason why K. Govindaswamy, who is not connected with the working of Yalvigi station, should depose against Hanumantha Chikkappa. K. Govindaswamy has also stated that he had seen Hanumantha Chikkappa on prior occasions. There is nothing in the evidence of K. Govindaswamy (W. 13), which could give room for suspicion regarding the identity of the person, who spoke to him and wanted information to be conveyed to Yalvigi. As already discussed, the evidence of K. Govindaswamy, which is corroborated by D. V. Patil is credit-worthy and accepted. In view of this, the argument that, as neither D. V. Patil nor any one else has spoken to his having seen Hanumantha Chikkappa getting down from No. 215 Passenger at Yalvigi, he could not have come by that train, has no force.

- (vi) Reliance is placed on the evidence of R. Govindaswamy (W. 41) SIMM, Yalvigi for the contention that Durga was the Pointsman on duty at points T-1 for No. 203 Down Express. He also seeks support from the statement of Biddadi Veerabhadraappa, recorded by DOS, Mysore that Durga was seen at the station 5 minutes after the accident. We have discussed the evidence of R. Govindaswamy and come to the conclusion that it was Hanumantha Chikkappa who was manning the points T-1 for the reception of No. 203 Express. The statement of Biddadi Veerabhadraappa loses all value, as Durga could not have been at the station 5 minutes after the accident.

- (vii) The Learned Counsel pleads that the evidence of Siddappa Hanumappa should not be used against his client in as much as, according to his own admission, the initial statement of Siddappa Hanumappa was not voluntary. The extent to which the evidence of Siddappa Hanumappa is to be relied upon against Hanumantha Chikkappa has been discussed in detail. The Commission has not also accepted his (Siddappa's) plea that his statements before the DOSs Hubli and Mysore, were not voluntary and that he was tutored by D. V. Patil. In these circumstances, this argument of the Learned Counsel also lacks force.

6.18.14. Sri L. G. Havanur, Learned Counsel for Hanumantha Chikkappa filed a memo on 22-5-68 stating that he would not examine his client Hanumantha Chikkappa. Sri L. G. Havanur, however, asked us to take note of the reasons for his client declining to examine himself. In his memo he states that:—

- (i) In the notice issued by the Commission on the day of commencement of the inquiry, it is stated that "It may be necessary for the Commission to inquire into your conduct in connection with the inquiry into

the collision...." There is nothing his client has to explain his conduct in connection with the inquiry.

(ii) If it is interpreted that his client's conduct in connection with the collision is to be inquired into, he is placed in the position of an accused person and he loses the character of a witness. The fact that the Railway have produced certain material as evidence against his client makes them the complainant. To this extent, the proceedings before the Commission is criminal in its nature. It appears it is with this object the Central Government, while investing the Commission with certain powers, has not declared the Commission a Civil Court under Section 5(4) of the Commissions of Inquiry Act, 1952 (LX of 1952).

(iii) His client declines, therefore, to examine himself as a witness. While the Commission may put questions to him affording him an opportunity of explaining the evidence against him, he cannot be administered oath and he cannot be subjected to cross-examination. Officials to whom similar notices have been issued are to be treated as co-accused and their evidence cannot be put to his client for acceptance or rebuttal, as each one of them has tried to extricate himself.

(iv) His client's abstinence from examining himself as a witness should not give scope for adverse inference.

We are unable to appreciate the validity of the above submission. In view of the protection afforded under Section 6 of the Commissions of Inquiry Act, 1952 (LX of 1952), his statement would not subject him to, or be used against him in, any civil or criminal proceeding except as provided for therein. Hence there is no valid reason for the non-examination of Hanumantha Chikkappa. There are many circumstances which it was for him to explain. This conduct on the part of Hanumantha Chikkappa lends support to our conclusion that it was he who inserted key B in the key-hole of the Down Home signals post enabling thereby the Down Main Home signal being lowered. We have no hesitation to hold, therefore, that it is his gross negligence that has contributed to the accident.

Operation of Down Main Home signal lever: Responsibility of Middle Duty Pointsman

6.19.1. It has already been established that the accident was caused by the reception on signals of No. 208 Express on the main line, which was obstructed by No. 215 Passenger. This presupposes that the Down Main Home signal lever in the Ground Lever Frame was pulled.

6.19.2. D. V. Patil has been changing his stand with regard to handing over of the key C and the padlock key of the Down Home signal lever and pulling the Home Signal lever also. In his first statement given to DOS, Hubli, he states that Middle Duty Pointsman Siddappa Hanumappa pulled over the Main Home signal lever. In answer to question 2 put by DOS, Mysore D. V. Patil again states that Siddappa pulled the Main Home signal lever and jumped across No. 215 Passenger to hand over the outgoing token for No. 208 Express. In the answers to questions 3 and 4, D. V. Patil avers that he handed over the key C to Pointsman Siddappa Hanumappa with instructions that he should be careful to receive No. 208 Express on the loop line but that the Pointsman opened the key lock-up box and took the padlock key for the Down Main Home signal lever. In his affidavit and evidence before the Commission, D. V. Patil has stated that, after receiving the out report for No. 208 Express from Gudgeri he opened the glass-fronted key box in the Station Master's office, took out key C and the key of the padlock of the Down Loop Home signal

lever, gave key C and the outgoing token to Siddappa, instructed him to receive No. 208 Express on the loop line but kept the padlock key of the Down Loop Home signal lever in his pocket. He went out and stood on the tool box to observe the signals and to exchange 'All Ready' signal with the Pointsman at points T-1. He exchanged 'All Ready' signal with the Pointsman at points T-1 and then handed over the padlock key pertaining to the Down Loop Home signal lever to Siddappa Hanumappa and was observing the signals as also the Ground Lever Frame. He saw Siddappa Hanumappa pull the Down Main Home signal lever and saw him run towards the loop line with the torch and the token pouch. He jumped from the tool box immediately and put back the lever pulled by Siddappa to its normal position. According to D. V. Patil he did not see whether the Down Main Home signal came to the "OFF" position or not when Siddappa Hanumappa operated the lever pertaining to that signal, though in his affidavit filed earlier he has taken the stand that both the Down Home signals were at danger even after the Down Main Home signal lever had been pulled.

6.19.3. Siddappa Hanumappa has, in his earnest statement, (recorded by DOS, Hubli) stated that he pulled the Main Home signal lever instead of the Loop Home signal lever. In his statement recorded by DOS, Mysore, he again admits that he pulled the Down Main Home signal lever by mistake. Though he received key C from D. V. Patil, he asserts that no padlocks had been put on the levers of the Ground Lever Frame and they were all free. In his affidavit and testimony before the Commission, however, he takes the stand that he did not pull any lever in the Ground Lever Frame and that D. V. Patil told him that he himself would operate the lever and instructed him to go towards the points T-5 and verify whether these points were properly set or not and to inform him about the same. He further states that he went near the tea stall on the platform on Harihar side, satisfied himself by looking at the point indicator about the correct setting of the points T-5 and informed that fact to D. V. Patil. According to him, while he was coming back towards the SM's office, D. V. Patil told him that he had already pulled the lever and that he (Siddappa) might go to the loop line to hand over the outgoing token to the Driver of No. 208 Express and accordingly he went and stood near the loop line.

6.19.4. Normally it is the duty of the Middle Duty Pointsman to unlock the Ground Lever Frame by means of key C, unlock the padlock on the particular lever to be operated, operate the relevant lever and, after the train is received, to restore that lever to its normal position, padlock the lever and the Ground Lever Frame and hand over the key C and the lever padlock key back to the SM on duty. No. 215 Up Passenger arrived at Yalvigi at 21.51 hrs. No. 208 Express was due to pass through next at 22.35 hrs. As there was an interval of nearly 44 minutes between the arrivals of these trains, it is improbable that the levers in the Ground Lever Frame would have been left unlocked. In his evidence before the Commission, Siddappa Hanumappa has admitted that, after No. 215 Passenger was received, he locked the Ground Lever Frame and the lever padlock and handed over both the keys to D. V. Patil. It is, therefore, clear that the version of Siddappa Hanumanappa (statement made before the DOS Mysore) that the levers in the Ground Lever Frame had not been locked is disproved by his own later admission.

6.19.5. There are two versions as to who pulled the lever for the Down Main Home signal. The evidence of D. V. Patil, S. B. Harnahalli

and A. D. Nadaf go to show that it was Siddappa Hanumappa who pulled the lever as admitted by him in his statements before the DOSs, Hubli and Mysore. The evidence of D. V. Patil on this basic issue is substantiated by his actions immediately after the accident. His first statement "Hanumantha Konda, Sidda Kotta"* and his further version of the circumstances relating to the accident as outlined by E. K. S. Pullay, extracted in para 6.16.4, do not leave us in any doubt that it was Siddappa Hanumappa, who pulled the Down Main Home signal lever. S. B. Harnahalli (W. 38) states that, when he came out of the SM's office after his decision not to take water, Siddappa Hanumappa was standing near the Ground Lever Frame and the ASM shouted at Siddappa for not having lowered signals, even though the light of No. 208 was visible. The inference is that Siddappa immediately pulled the lever. A. D. Nadaf (W. 44) has also mentioned as under:

"Siddappa was the middle duty Pointsman. He was asked to give signal to the incoming Deccan Express. Siddappa pulled the lever and gave the signal to the incoming train."

A. D. Nadaf was in a position to observe these operations as the coach of No. 215 in which he was travelling was almost opposite to the Ground Lever Frame and he was also outside on the platform.

"Hanumantha Konda, Sidda Kotta"—

Hanumantha killed. Sidda gave the slip".

6.19.6. The Learned Counsel for Siddappa Hanumappa has advanced the plea that S. B. Harnahalli has deposed against Siddappa Hanumappa to help D. V. Patil. This is not borne out, S. B. Harnahalli has stated that, immediately after the accident, as he was going to the SM's office to inform Mysore Control, he found Siddappa Hanumappa holding the lever in the pulled position and resting his head on the lever in a dazed condition. D. V. Patil states that he himself put back the Down Main Home signal lever, on noticing that the wrong lever had been pulled just prior to the accident. If S. B. Harnahalli wanted to help D. V. Patil it would have been natural for him to support the latter's version, which he has not done. On the other hand, the evidence of S. B. Harnahalli is corroborated by the testimony of R. Dasarathy (W. 23), who reached the station within a minute after the accident and found Siddappa Hanumappa not only holding the Down Main Home signal lever in a pulled condition and resting his head on the lever, but also putting it back to normal. The Commission's observations have shown that R. Dasarathy could have reached the station from his house within a minute after the accident. He states that he had also related what he had seen to his S.I.M.M., R. Govindaswamy (W. 41), after some time, and this is accepted by the latter. Taking all these factors into consideration we conclude that it was Siddappa Hanumappa, who pulled the Down Main Home signal lever.

6.19.7. It is in the evidence of E. K. S. Pullay, extracted in para 6.16.4, that, according to the first statement made by D. V. Patil, Siddappa Hanumappa himself took both key C and the padlock key of the Down Main Home signal lever from the key lock-up box. In his statement recorded by DOS, Mysore, D. V. Patil states that he gave key C to Siddappa Hanumappa but the lever padlock key was taken by Siddappa Hanumappa directly from the key lock-up box. In his affidavit and testimony however D. V. Patil changes his version and deposes to having handed over key C first and later padlock key for the Down Loop Home signal lever. Apart from the fact that there is no evidence to show

that the padlock key of the Down Loop Home signal lever (No. 2) could have opened the padlock on the Down Main Home signal lever (No. 1), we cannot account for the varying later stands taken by D. V. Patil except as after-thoughts. It has been shown earlier that the Down Main Home signal lever should have had its padlock in locked condition, when No. 208 Express was due to be dealt with. We have no independent evidence, except that of E. K. S. Pullay, to decide whether it was D. V. Patil or Siddappa Hanumappa who took both the keys from the glass-fronted key lock-up box. There is no reason why E. K. S. Pullay should depose anything other than what he heard from D. V. Patil. We have to conclude, therefore, that it was Siddappa Hanumappa who took both the C key and the padlock key for the Down Main Home signal lever from the key lock-up box and the version of one key being taken by D. V. Patil and the other by Siddappa Hanumappa cannot be believed.

6.19.8. Shri N. Santhosh Hegde, the Learned Counsel for Siddappa Hanumappa submits the following arguments:

(i) It is his contention that Siddappa Hanumappa gave the statements before the DOSs, Hubli and Mysore, as instructed by D. V. Patil. D. V. Patil has denied this suggestion that he had prevailed upon Siddappa Hanumappa to give his statements in any particular manner to serve his own interests. The only factor cited in support of this stand is that D. V. Patil and Siddappa Hanumappa were reported to have been together in the ante-room on the SM's office for some time when they wrote their statements. K. Alala Sundaram (W. 4), who recorded the statement of Siddappa Hanumappa has deposed as under in his cross-examination by Sri N. Santhosh Hegde:

"The Pointsman Siddappa Hanumappa was available at the Station Master's Office along with other members of the staff at Yalvigi. I asked all the staff members who had gathered there to give their statements. I was satisfied that they were in a fit condition to give the statements. The Statement of Siddappa Hanumappa was written by Siddappa Hanumappa in my presence. The Statements were recorded one by one. D. V. Patil is the person who gave the statement prior to Siddappa Hanumappa. The Statement of Siddappa Hanumappa was written by Siddappa Hanumappa by himself. It was not dictated by any other person. It is not correct to state that Siddappa Hanumappa was in a dazed condition incapable of giving statement when he gave the first statement."

V. Ramakrishna Nair (W. 5), Steno to DOS, Hubli, has stated as under in his cross-examination by the Learned Counsel:

"In the meantime Siddappa Hanumappa was writing down his statement. I asked Siddappa Hanumappa to give his statement and he stated that he knew Kannada and he could write it in Kannada and gave his statement in Kannada. I did not ask Siddappa Hanumappa directly to give the statement but only through ASM, Sri Pillay. Siddappa Hanumappa wrote the statement himself. Nobody dictated the statements to him. No one told him as to what he should write."

We do not think that Siddappa Hanumappa is so ignorant or innocent as to be unaware of the implications of what he was stating before his officers. We do not also believe that he would go to the extent of taking the blame on his head to save D. V. Patil. It has also been pointed out earlier that the statements of Siddappa Hanumappa recorded by DOSs, Hubli and Mysore are not altogether consistent with the version given by D. V. Patil and it is very difficult to conclude that Siddappa Hanumappa was tutored by D. V. Patil. We are satisfied that statements given by Siddappa Hanumappa before W.4 and W.6 are voluntary and not prompted either by D. V. Patil or by any other person.

(ii) (a) With regard to the evidence of S. B. Harnahalli, it is the plea of the Learned Counsel that he had deposed against Siddappa Hanumappa to held D. V. Patil. This aspect has already been dealt with. In view of the fact that the evidence of S. B. Harnahalli runs counter to the case advanced by D. V. Patil in material aspects, the above plea has no force.

(b) It is also pleaded that S. B. Harnahalli, who could not identify the Pointsman proceeding towards points T-1, could not be sure of the identity of Siddappa Hanumappa also. There is no material to show that S. B. Harnahalli had made any mistake in the identity of the person standing near the Ground Lever Frame. He had seen Siddappa Hanumappa twice, once standing near the Ground Lever Frame and the second time leaning on the pulled lever and resting his head thereon in a dazed condition. The situations are different from having a passing glimpse of the Pointsman with a chaddar proceeding to the points. We are unable to discard the evidence of S. B. Harnahalli for the reason suggested by the Learned Counsel.

(iii) It has been stated by the Learned Counsel that the evidence of R. Dasarathy should not be used against his client as Dasarathy was jealous of Siddappa Hanumappa in that the latter was expecting to get promoted as a brakesman. No value can be attached to this argument, as there is no basis for this submission.

(iv) With regard to A. D. Nadaf, it is contended that his conduct was unnatural, that he was a chance witness and that he was observing only particular things relevant to the prosecution of the railway staff concerned and not the other aspects of the tragedy that had taken place. That A. D. Nadaf did not notice certain other factors, when he was moving on the platform, is not sufficient to discredit his evidence. He was travelling with his family in the Second Class coach, which was third from the engine of No. 215 Passenger and which was standing almost opposite to the Ground Lever Frame prior to the accident. He was also walking on the platform and making enquiries as to the possibility of speeding up the movement of No. 215. It is, therefore, reasonable to accept that he could have seen what had happened near the Ground Lever Frame and his evidence which is consistent with that of S. B. Harnahalli deserves to be accepted.

(v) It is pleaded that the conduct and general behaviour of Siddappa Hanumappa prior to the accident do not indicate that he would have been careless and negligent. The Learned Counsel contends that his client had always been diligent in his duties and that he had not absented himself without permission at any time. The service record of Siddappa Hanumappa, however, discloses that he had been punished on several occasions for unauthorised absence, though not recently. It is, therefore, difficult to build up a case of innocence on the basis of his past conduct or record.

(vi) The Learned Counsel then puts forward the plea that the conduct of Siddappa Hanumappa after the accident should be considered dispassionately. If he was responsible for pulling the wrong lever he would not have remained at the station and carried on with his duties. If he was guilty of any negligence, he could not have been taken for piloting the first Medical Relief Special from Hubli. It is submitted that the inference should, therefore, be that Siddappa Hanumappa was not suspected of any serious dereliction of duty and that is why he was allowed to continue on duty. We are unable to accept this contention as there is nothing unnatural in Siddappa Hanumappa continuing to be on the platform and being called upon to discharge certain duties.

(vii) It is also contended that Siddappa Hanumappa had been taking a consistent stand, except for the tutored statements he gave to the DOSs Hubli and Mysore. It has been found that there is no room to believe that these statements were tutored. It has also been shown, while discussing the evidence, that Siddappa Hanumappa had also been changing his version. This contention is, therefore, untenable.

We conclude that it was Siddappa Hanumappa who pulled the Down Main Home signal lever in spite of being aware that No. 215 was standing on the main line before him.

6.19.9. Sri N. Santhosh Hegde, the Learned Counsel appearing for Siddappa Hanumappa, the Middle Duty Pointsman, submitted at the outset, that the Commission may refrain from answering item (b) of paragraph 2 of the notification appointing the Commission, on the ground that there are pending prosecutions. Reliance was placed on the observations in Paragraph 35 of Vol. 7 of Halsbury's Laws of England. The said observations do not apply to the present proceedings governed by the provisions of the Commission of Inquiry Act, 1952 (LX of 1952). Section 3 of the Act is wide enough to cover the question referred to in paragraph 2(b) of the notification. Further, in view of the decision in A.I.R. 1960 S.C. page 806, which permits an enquiry by a domestic tribunal against a party, when a prosecution is pending against him, it stands to reason that the Commission has competence to record its conclusions as to the person or persons, if any, responsible for the accident. It should also be mentioned that the findings of the Commission are not in the nature of a judgment and it is only a report that the Commission is submitting to the Central Government. Therefore, we do not see any substance in the contention of the Learned Counsel.

Fixation of Crossing of Nos. 215 Passenger and 208 Express at Yalvigi

6.20.1. D. V. Patil contends that he had been intimated earlier by the Mysore Control that the crossing of Nos. 215 and 208 would be at Gudgeri and that, after No. 215 Passenger arrived at Yalvigi, the Section Controller changed his decision and shifted the crossing to Yalvigi. In his affidavit, D. V. Patil has stated that the revised decision was given by the Section Controller, when he sought his instructions for supplying water to the engine of No. 215. This point of change in the decision of the Section Controller has been developed further in his testimony before the Commission. He first states that he was permitted to move No. 215 to Gudgeri for crossing No. 208 and accordingly he gave instructions to Basavanna Gorawar on the phone that No. 215 would be passing towards Hubli and told Durga to be at the points T-1 and show green signal to No. 215. The instructions to Durga were unnecessary as No. 215 was to

leave from the main line and trailing points are not required to be manned. In the next sentence, he, however, states that he was informed by Mysore Control that further instructions would be issued after No. 203 cleared at Gudgeri. No. 203 Up arrived at Gudgeri at 21-44 hrs. as per Control Chart and the section was cleared at 21-45 hrs. in accordance with the Train Signal Register of Yalvigi. No. 215 arrived at Yalvigi at 21-51 hrs. and was normally due to leave at 21-54 hrs. It will thus be noted that after No. 203 Up cleared section at Gudgeri, D. V. Patil had enough time to block and despatch No. 215 at 21-54 hrs. if necessary, after securing fresh instructions from the Section Controller. No such thing was done. According to D. V. Patil, it was only after the reference regarding supply of water to the engine of No. 215 was disposed of about 10 to 15 minutes after its arrival, Gudgeri informed him that the crossing between Nos. 215 and 208 would be at Yalvigi. This was confirmed by the Section Controller.

6.20.2. K. Kotilingam (W. 14), Section Controller, Mysore, has on the other hand stated that at about 21.25 hrs. he had informed D. V. Patil that No. 215 Passenger, which was then at Savanur, would come to Yalvigi and wait there to cross No. 208 Express. He has also denied that he had informed the A.S.M. at any time that the crossing of these two trains would be at Gudgeri. We have examined the Control Chart carefully. No. 208 Down Express was expected to leave Hubli at the scheduled time. It actually passed through Kundgol only 5 minutes late. No. 203 Up Express was running on time and was expected to reach Saunshi at 21-48 hrs. and allow No. 208 Down Express to run through at 21-59 hrs. Under these circumstances, if No. 215 Up were to be moved from Yalvigi to Gudgeri to cross No. 208 Down at Gudgeri, the latter would have been put out by 8 minutes in crossing, perhaps more if No. 215 took extra time on Yalvigi-Gudgeri Section. It appears, therefore, that the Section Controller's initial decision was to cross No. 215 and 208 at Yalvigi. The version of D. V. Patil is not thus borne out. It may, however, be mentioned that at about 21-45 hrs, when No. 203 Express had already lost time on the run upto Gudgeri, it was open to the Section Controller to have revised his earlier decision and allowed No. 215 to start but he had not chosen to exercise his discretion presumably because he was not aware of the exact running of No. 208 Express on account of control interruption between Kundgol and Hubli.

6.20.3. In this view, D. V. Patil is to be deemed to have violated para 6K (i) of the Station Working Instructions in that he had not set points T-1 for the loop line before taking off signals for the reception of No. 215 Passenger. This possibly was due to the fact that there was no Pointsman to man points T-1, Durga having been sent earlier to the level crossing at Km. 423/2 to relieve Basavanna Gorawar.

Time available for arranging reception of No. 208 Express

6.21. After the arrival of No. 215 Up at 21-51 hrs. D. V. Patil had a clear period of 44 minutes to have followed the prescribed procedure. He gave line clear to Gudgeri for No. 208 Express at 22-18 hrs. Even then, he had a clear period of 17 minutes to have arranged proper reception of No. 208 Express. In accordance with para 12 of the Station Working Instructions reception signals are to be taken off not earlier than 5 minutes prior to the expected arrival of the train. At Yalvigi, about 5 minutes are normally required for following the prescribed procedure of giving instructions to Pointsmen, for pointsmen to proceed to the points and set the route, for exchanging "All Ready" signals with the Pointsmen

at both ends and for taking off signals in time. This still leaves seven minutes to spare. The Station staff at Yalvigi had thus enough time to follow the procedure prescribed in para 6D of the Station Working Instructions even if action had not been taken earlier as per para 6K(i) thereof. It is in evidence that 19th March, 1938 was a dull day from the point of view of traffic dealt with at Yalvigi. Only 194 passengers were booked during the entire day as against the normal average sale of 350 to 400 tickets. D. V. Patil issued hardly 10 tickets for No. 215 Passenger. The parcel work was also meagre. In these circumstances, the attention of the S.M. should not have been distracted from the discharge of his train operating duties.

Responsibility of D. V. Patil Rules Violated

6.22.1. It is clear from the evidence on record that it was the intention of D. V. Patil to receive and pass through No. 208 Down Express on the loop line at Yalvigi, as the main line was occupied by No. 215 Up Passenger. He had, accordingly, issued instructions to Biddadi Veerabhadrappa, Pointsman on duty at points T-5. Biddadi Veerabhadrappa had carried out the instructions given to him. In his earlier statements given to DOs., Hubli and Mysore, Siddappa Hanumappa had accepted that he was directed to pass No. 208 Express on the loop line but in his affidavit and testimony before the Commission, he changes his stand and pleads that he was only asked to verify the setting of the points T-5, proceed to the loop line and hand over the out-going token to the Driver of No. 208 Express. His acceptance that he was atleast asked to verify the setting of points T-5 indicates that he was aware and had been instructed that No. 208 was to be passed on the loop line.

6.22.2. It has not been made clear in the earlier statements of D. V. Patil and Siddappa Hanumappa, whether similar instructions had been conveyed to Hanumantha Chikkappa who went to points T-1. In his affidavit and testimony before the Commission, D. V. Patil gives a version of clear instructions having been given to Hanumantha Chikkappa and Durga. Siddappa Hanumappa changes his stand with regard to Hanumantha Chikkappa. In his affidavit, Siddappa Hanumappa mentions that he pointed out Hanumantha Chikkappa to the ASM "who then called him and gave him the B key to go to the down point". In his testimony, Siddappa Hanumappa, however, avers that he did not see what key was given to Hanumantha Chikkappa and he did not hear what instructions were given to him. We have, however, the testimony of E. K. S. Pullay, who reached the station within a few minutes after the accident as to what D. V. Patil told him:

"He received the 'out-report' and asked Siddappa Hanumappa the middle duty pointsman to take the relevant key from the key box in the Station House and to pass No. 208 on the loop line. Accordingly the said Siddappa Hanumappa took the key and in turn handed over Key-B to Hanumanthappa Chikkappa telling him to receive No. 208 on the loop line."

It is, therefore, clear that such instructions should have been issued to Hanumantha Chikkappa as No. 215 was standing on the main line. In any case, Hanumantha Chikkappa ought to have been aware of the same as he arrived by that train.

6.22.3. Para 6D of the Station Working Instructions details the procedure to be followed for reception of a down train on the loop line at

Yalvigi. Para 6D(i) stipulates that the SM must send a Pointsman to the outermost facing points with key B instructing him to set and lock points T-1 for the loop line and to unlock the Down Home signal for the loop line. At the same time, he should send another Pointsman with key A to the outermost trailing points T-5 with instructions to set and lock the points for the loop line. It is clear from the evidence on record that Biddadi Veerabhadrapa, who was on duty at points T-5, carried out the instructions issued to him and points T-5 were set for the loop line. With regard to the facing end, however, Hanumantha Chikkappa, who was sent to points T-1 failed to set points T-1 for the loop line extract key Q and then unlock the Down Home signal for the loop line.

6.22.4. Before taking off the Down Loop Home signal, the SM has first to exchange "All Ready" signals with the Pointsman at points T-5 and then with the Pointsman at points T-1 to assure himself that the points at either end have been set and locked for the loop line. He has also to satisfy himself that the route for the train and the reception line are clear and free from obstruction. While there is evidence to show that either D. V. Patil or Siddappa Hanumappa had verified the setting of points T-5, the very fact that the points T-1 had been set for the main line indicates that no such attempt was made. Evidence with regard to exchange of "All Ready" signal even with the Pointsman at points T-5 is inconclusive. Siddappa Hanumappa says he did not see any such signal being exchanged with the Pointsman at points T-5. D. V. Patil has taken the stand in his affidavit and testimony that he stood on the tool box and exchanged "All Ready" signal with the Pointsman at points T-1. The Commission's observations disclose that this would have been impossible as the view should have been obstructed by No. 215 Passenger standing on the platform. Apart from other evidence, D. V. Patil admits that the engine of No. 215 and two coaches were in advance of the Lock-out Post. It only proves that D. V. Patil did not exchange "All Ready" signal with the Pointsman at points T-1 and consequently did not verify the setting of points T-1. It appears that D. V. Patil had delegated his responsibility to Middle Duty Pointsman, Siddappa Hanumappa. There is also no evidence to indicate that D. V. Patil satisfied himself that the route for the train and the reception line i.e., the loop line is clear and free from obstruction. If he had atleast taken this elementary care, he could have noticed from the point indicator that the points at the facing end had not been set for the loop line.

6.22.5. The SM is next required to satisfy himself that the level crossing at Km. 423/2 is secured against road traffic. As this is an interlocked level crossing and magneto telephone communication has been provided, it is clear from the recorded evidence that this part of the responsibility has been discharged by D. V. Patil either by himself, as deposed by him, or by Siddappa Hanumappa as indicated in his affidavit. It appears from the general pattern of behaviour noticed in this case that it is quite probable that D. V. Patil had delegated even this responsibility to the Middle Duty Pointsman.

6.22.6. According to G.R. 37, it is the duty of D. V. Patil to have satisfied himself that points T-1 for No. 208 Express were correctly set and locked for the loop line, before handing over key C and the padlock key of the Down Loop Home signal level to the Middle Duty Pointsman for taking the signal off to admit the train. D. V. Patil could not have discharged this responsibility in as much as he had not exchanged "All Ready" signal with the Pointsman at points T-1 as already mentioned.

The evidence of E. K. S. Pullay shows that it was the Middle Duty Pointsman, Siddappa Hanumappa, who had taken key C and the padlock key of the Down Main Home signal lever in the Ground Lever Frame from the key lock-up box as instructed by D. V. Patil. This issue has also been discussed earlier and we have come to the conclusion that Siddappa Hanumappa had himself taken key C and the padlock key of the Down Main Home signal level. This indicates that D. V. Patil had allowed the Middle Duty Pointsman a free hand in the reception of No. 208 Express.

6.22.7. Southern Railway S.R. 36(i)(a) enjoins on the SM the duty of assuring himself that the concerned signals governing the movement of a train are taken off. In this case, it is the duty of D. V. Patil to have assured himself that the Down Loop Home signal and the Down Outer Signal were taken off for the reception of No. 208 Express. In his statement recorded by the DOS, Mysore, on 20th March, 1968, D. V. Patil has stated that the Down Home and Outer signals had been taken off for the main line. In his affidavit filed before the Commission in support of his case, he has changed his stand and stated that he observed the position of the Home signals from the top of the tool box and that they were in the 'On' position, even though the Down Main Home signals lever had been pulled by the Middle Duty Pointsman earlier. This stand has been taken to suggest that the Driver of No. 208 Express had passed signals at danger. In his evidence before the Commission, however, D. V. Patil comes forward with the third version that he did not observe the position of the Home signals even though he went on top of the tool box for that purpose. His explanation is that, when he was on the top of the tool box, he heard and saw that the Down Main Home signal lever had been pulled by the Middle Duty Pointsman and he immediately jumped down and put back that lever. It has already been shown that the Down Main Home signal lever was found in the pulled position even after the accident. It is, therefore, clear that the version of D. V. Patil that he had put back the Down Main Home signal lever within a few seconds after it was pulled by Siddappa Hanumappa is not true. At any rate, if D. V. Patil had looked at the Home signal at this time, he could have seen that the Down Main Home signal had been cleared and if the signal had been put back immediately, as stated by him, the accident should have been averted as the train should, at that time, have been still beyond the Outer. We are, therefore, of the view that D. V. Patil had not come out of his office even at this stage and that the reception of No. 208 Express was entirely handled by the Class IV staff at the station. It is clear that 'Line Blocked' collars were not provided on levers Nos. 1 and 4 of the Ground Lever Frame immediately after the arrival of No. 215 passenger on the main line and D. V. Patil did not follow the step-by-step procedure indicated in para 2.30 of Chapter II for receiving No. 208 Express on the loop line. It is thus established that D. V. Patil has violated G.R. 37, S.R. 36(i)(a) and Para 6D of the Station Working Instructions applicable to Yalvigi.

Disharmony between Class III and Class IV Staff at Yalvigi

6.23.1. For the first time in his evidence before the Commission, D. V. Patil has referred to indiscipline alleged to be prevalent amongst the Class IV staff at Yalvigi and the lack of action taken by the Divisional Administration in spite of complaints made to them. This aspect of his evidence was not, however, relied upon by the Learned Counsel for D. V. Patil in his arguments before the Commission. We are convinced that, though there might have been lack of cordiality between the Class III

and the Class IV staff at Yalvigi, this particular aspect did not, in any way, contribute to the accident. There are, however, indications of general lack of discipline at the station not only at the Class IV level but also at the Class III level. This aspect is dealt with in Chapter VII.

Defence of D. V. Patil

6.24. D. V. Patil's contention is that signals had not been lowered and could never have been lowered for No. 208 Express on the following grounds:

- (i) The Railway in its presentation of facts did not mention anywhere about the signals having been taken off for the reception of No. 208 Express. They did not choose to record the statement of Driver S. Viswanath till 30th March, 1968, for the reason that they did not suspect signals having been given.
- (ii) The evidence of H. K. T. Iyengar, who is bound to support Driver S. Viswanath, should not be accepted in as much as, in his first information to the Mysore Control, he had not mentioned the cause of the accident. His later statements and affidavit should be deemed as after-thoughts.
- (iii) The evidence of S. B. Harnahalli should similarly be rejected as he had not also mentioned the cause of the accident, while conveying the first information to the Mysore Control. In his statements before the DOSs, Hubli and Mysore, he did not mention that he heard D. V. Patil saying that the Outer was taken 'Off' for No. 208 Express.
- (iv) Siddappa Hanumappa is in the position of a co-accused. It is only in his affidavit and testimony before the Commission that Siddappa Hanumappa says for the first time that he saw the Down Main Home signal in the 'Off' position. He is a biased witness and in the absence of acceptable corroboration his evidence should be rejected.
- (v) The evidence of E. K. S. Pullay, who did not have the personal knowledge of the accident, should not also be used against him. Even E. K. S. Pullay did not mention the cause of the accident in the first information conveyed to the Mysore Control. The entry in the Mysore Control Chart to the effect that No. 208 Express was given 'pass through' does not specifically refer to signals. In this connection, the Learned Counsel for D. V. Patil refers to the strained relations between E. K. S. Pullay and D. V. Patil implying thereby that E. K. S. Pullay is inimically disposed towards his client.
- (vi) Durga did not mention that signals were cleared for the reception of No. 208 Express, even though he gave his slot from the level crossing at Km. 423/2 on the Down Outer by pulling lever No. 2 in the two lever frame near the gate lodge. The evidence of R. Dasarathy and S. B. Harnahalli to the effect that the Down Main Home signal lever was found pulled immediately after the accident does not, in any way, prove that the Down Main Home signal was lowered. It is his contention that even though the lever had been pulled, the signal arm did not go 'off'.
- (vii) The evidence of Driver S. Viswanath is also suspect in that, when he met S. V. Srinath (W.35) he did not tell him that

signals were in his favour. The Learned Counsel, therefore, submits that Driver S. Viswanath had, in all probability, not seen signals and contends that his eye-sight on account of age might not have been normal. The evidence of the Driver with regard to speed is not borne out by the corresponding entries in the tachochart and, therefore, his evidence should be disbelieved.

- (viii) It is also pleaded that the sentence in the D. V. Patil's statement given to DOS, Mysore i.e. "I saw Home and Outer lowered for Main line" should be treated as incorrect in as much as D. V. Patil was not in a fit state of mind to give his statement and that, on account of the pressure exercised by the DOS, Mysore, he had mentioned something which he did not intend to do.

All the points raised by the Learned Counsel for D. V. Patil have been dealt with in detail in Para 6.16 of this Chapter, while discussing the evidence for determining that the Down Main Home and Down Outer signals were cleared for the reception of No. 208 Express on the main line. It has also been our conclusion that D. V. Patil was in a fit state of mind when he gave his statements to the DOSs, Hubli and Mysore and that there is no reason to believe that B. V. Venkatesh recorded anything which was not voluntarily given by D. V. Patil. We attach great value to the statements recorded within a few hours after the accident, as D. V. Patil and others were in a repentant mood and were inclined to give factual information. It is in evidence that Driver S. Viswanath was examined in February 1968 and declared medically fit to continue as Driver and D. V. Patil's plea that his eye sight was not all right has no basis. It is, therefore, unnecessary to cover the same ground once again and deal with the arguments item by item. It is sufficient to mention that the evidence of D. V. Patil has been disproved in many important aspects and the varying stands he has taken from time to time disclose an opportunist approach merely to make out a case of innocence. In these circumstances, we are of the view that it is established that D. V. Patil is responsible for causing the accident and has violated Para 6D of the Station Working Instructions as well as G.R. 37 and Southern Railway S.R. 36(i) (a).

Responsibility of Hanumantha Chikkappa and rules violated

6.25.1. Hanumantha Chikkappa had to come on duty at 19 hrs. on 19th March, 1968. We have come to the conclusion that he came on duty on that day only after the out report for No. 208 Express was received from Gudgeri. D. V. Patil has told the Commission that Hanumantha Chikkappa had not obtained his permission to come late for duty on 19th March, 1968. Hanumantha Chikkappa has neither filed his statement nor has he chosen to give evidence before the Commission. The statement which he gave to DOS, Mysore that he relieved Basavanna Gorawar at the level crossing at Km. 423/2 at about 19.30 hrs., has been found by us to be untrue. His lapse is all the more grave in as much as he did not choose to come for duty immediately after he alighted from No. 215 but only after about 35 minutes. In these circumstances, we may incidentally mention that Hanumantha Chikkappa violated G.Rs. 180 and 181(a).

6.25.2. Hanumantha Chikkappa, who arrived at Yalvigi by No. 215 Passenger, was well aware of the fact that the main line was obstructed. The evidence of D. V. Patil discloses that he handed over the key B

to Hanumantha Chikkappa. It is also in the evidence of D. V. Patil that Hanumantha Chikkappa had worked as a Pointsman on certain occasions. He has not chosen to deny this by examining himself, Hanumantha Chikkappa is also qualified in Pointsman's duties, having successfully undergone the initial training in December, 1963, in the Class IV Staff Training School at Dharwar. It is thus seen that Hanumantha Chikkappa was conversant with the duties of a Pointsman. The evidence on record discloses that Hanumantha Chikkappa, who took the key B, did not set and lock the points T-1 for the loop line, but on the other hand directly inserted that key in the stem of the Home signal post and unlocked the Down Main Home signal thus being guilty of gross negligence. He has violated para 6D(iii) and (vi) of the Station Working Instructions, which is reproduced below:

6D(iii): "The Pointsman deputed to the outermost facing points must after proceeding to the Points, insert key 'B' in the lock of points T-1, turn and set the points for loop-line which will enable him to release Key 'Q' from its lock on the points. He must then insert key 'Q' in the lock on the stem of the Home signal for loop line turn thus unlock the Home Signal for loop line. Thereafter he must take his stand at the outermost facing points and exhibit a red signal towards the station."

6D(vi): "On the Down Loop Home signal being taken 'OFF' the pointsman at the outermost facing points must take 'OFF' the outer signal and alter his red signal to green by day and by night and exhibit it towards the approaching train."

Responsibility of Siddappa Hanumappa and rules violated

6.26. We have come to the conclusion that Siddappa Hanumappa pulled the Down Main Home Signal lever, though he was aware of the fact that No. 215 was standing on the main line before him and he was instructed to pass No. 208 Down Express on the loop line. If he was not careless or negligent in his duties, he would not have pulled the wrong lever, that brought the Down Main Home signal to the 'Off' position and enabled Hanumantha Chikkappa to take 'Off' the Down Outer signal. He has violated Para 6D(v) of the Station Working Instructions, which is reproduced below:

6D(v): "If everything is ready for the reception of the train the Station Master must after satisfying himself that the Level Crossing at Mile* 28/13-14 have been secured against Road Traffic as per para 11(A) and that the route for the train and the reception line are clear and free from obstruction hand over key 'C' and the key of the padlock of the Down Loop Home Signal lever to the staff on Platform duty and direct the Down Loop Home Signal to be taken 'OFF'."

xNOTE: The mileage figure is identical with the kilometrage figure Km. 423/2.

Durga not responsible

6.27. We have held that Durga was on duty at the level crossing at Km. 423/2, as directed by D. V. Patil, at the time No. 208 Express was dealt with at Yalvigi on 19th March, 1968. He has not violated any rule and is not in any manner responsible for the accident.

Basavanna Gorawar not on duty

6.28. Basavanna Gorawar was not on duty at the time of the accident and he has, therefore, nothing to explain in connection with the accident.

S. B. Harnahalli not responsible

6.29.1. The rules to be considered in connection with the duties of S. B. Harnahalli are G.R. 141, G.R. 143(d) and Southern Railway S.R. 143(i) (a), as well as the executive instructions referred to in Para 3.18 of Chapter III of this Report. Extracts from G.R. 141 and 143(d), and S.R. 143(i) (a) are given below:

G.R. 141: "Driver not to leave engine when on duty:—

No Driver shall leave his working locomotive or his self-propelled vehicle when on duty, whether at a station or on a running line, except in case of absolute necessity and after a competent man has been placed in charge of the locomotive or vehicle....."

G.R. 143(D): "The electric head light on the engine shall be fitted with a switch to dim the light and shall be dimmed—

(i) when the train remains stationary at a station;

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S.R. 143(i) (a): "The Driver of an incoming train must dim the electric head light on approaching the Home Signal or the outermost points where there is no Home signal and keep it dimmed until the train passes the Home signal or the outermost points, while leaving the station."

It is also to be noted, that for a train engine working outside station limits, no side lights are prescribed under S.R. 143, if the head light is in working order. S. B. Harnahalli has stated before the Commission that, 20 or 25 minutes after the arrival of No. 215 Passenger at Yalvigi, he went to the SM's office to ascertain for how long his train was likely to be detained at Yalvigi and ask for water for the engine, if necessary. He met D. V. Patil and asked for supply of water for his engine, as the train was being unduly detained. After some time, D. V. Patil consulted the Mysore Control and asked him to give a memo. On being assured that the train would not be detained any further after crossing No. 208 Express, he decided not to take water. He mentions that he handed over charge of his engine to his First Fireman V. Muniswamy before he went to the SM's office. D. V. Patil has also stated that S. B. Harnahalli came to the SM's office and asked him for water for his engine. Mention of this has been made in the Mysore Control Chart [Ext. 46], though there is difference with regard to the time of request for water. No. 215 Passenger arrived at Yalvigi 178 minutes late and it was further detained at Yalvigi station. In these circumstances, it cannot be said that the Driver of No. 215 Passenger was not justified in leaving his engine for purposes of ascertaining from the SM the prospects of his train being moved without further detention, as there is no other station upto Hubli, where watering facilities are available. We, therefore, accept the evidence of S. B. Harnahalli that he left the engine for justifiable reasons after handing over charge of the same to his First Fireman V. Muniswamy.

6.29.2. With regard to the head light. S. B. Harnahalli has stated that he dimmed the same as he entered the platform at Yalvigi and berthed his train within the fouling marks. The head light continued to remain dim till the accident took place. He ascertained later that

this was so during the period he had left the engine in charge of V. Muniswamy. S. Viswanath, Driver of No. 208 Express has, however, stated before the Commission that the head light of the engine of No. 215 was not burning at all at the time of the collision. In the absence of the evidence of V. Muniswamy, we have no material to come to a definite conclusion as to whether the head light of the engine of No. 215 was burning or not at the time of the accident. Even if it is taken that the head light of the engine of No. 215 was not burning at the time of the accident, S. B. Harnahalli could not be held responsible in as much as he was not on the engine at that time.

6.29.3. S. B. Harnahalli, before he left his engine, did not specifically ask his First Fireman to be on the look out for signals. The executive instructions referred to in para 3.18 of Chapter III of this report are not mandatory. They only speak of the desirability of the drivers and guards, watching the aspect of signals, when their train is waiting at a station for the purpose of crossing or precedence. Though the Commission feels that, there was a possibility of the accident being averted or its consequences minimised, if either S. B. Harnahalli or his First Fireman had been alert and watched the aspect of the signals cleared for No. 208 Express, they cannot be held responsible for violation of any specific rule. S. B. Harnahalli cannot thus be held to have contributed to the occurrence of the accident or violated any rule.

Speed Factor in collision and extent of responsibility of driver's Viswanath of No. 208 Express

6.30.1. G. R. 76(a) requires a driver to pay immediate attention to and obey every signal whether the cause of the signal being shown is known to him or not. G. R. 76(b) states that the driver shall not, however, trust entirely to signals but he must always be vigilant and cautious. G. R. 80(a) states: "When the Proceed signal is shown to a train, the Driver shall proceed at such speed as may be prescribed by special instructions." G. R. 89(b) reads as under:

"The Driver shall regulate and control the running of his train as accurately as possible, according to the Working Time Table, so as to avoid either excessive speed or loss of time; he shall not make up between any two stations more time than is allowed in this behalf by special instructions, and shall observe all temporary speed restrictions."

G. R. 122 stipulates that:

"Every Driver shall keep a good look-out while the train is in motion, and every Fireman shall also do so when he is not necessarily otherwise engaged."

The maximum permissible speed on the Hubli-Harihar Section is 75 Km. p.h. The maximum permissible speed over the facing points on the main line and through the station on the main line at the eleven crossing stations on this section is 50 Km.p.h. on account of the standard of signalling provided and non-isolation of the main line from the loop line. We have come to the conclusion that the Down Outer and the Down Main Home signals of Yalvigi station were in the 'Off' position for No. 208 Express. S. Viswanath (W.40), has given evidence that before passing the Down Outer and Down Home signals, he observed that they were in the

'Off' position. He was, therefore, correctly guided by signals, while entering Yalvigi station.

6.30.2. The tachochart of the tachograph, fitted to the engine YP 2646 of No. 208 Express from Hubli, has been produced before the Commission [and is marked Ext. 51]. R. R. Badagi (W. 18), AME, Mysore, and K. Viswanathan (W. 29), Principal, System Technical School, Southern Railway, Bangalore have given evidence before the Commission in regard to the interpretation of the readings on the tachochart. [Ext. 51]. Their evidence shows that, according to the tachochart [Ext. 51], the speed of No. 208 Express was probably 58 Km.p.h. at the time of the accident. The relevant portion of the evidence given by K. Viswanathan is reproduced below:—

"I see [Ex. 51] the chart of a Tachograph. I find that the chart was fixed at about 21-12 hours. The timings I am giving are as found in the chart. The train appears to have started as per the chart at 22.10 hours. The engine has picked up a speed of 60 K.M. per hour and has been running between 40 and 50 K.Ms. for some time and has come almost to a stop, at about 22-40 hours and has picked up speed upto 25 K.Ms. and again has come to a dead stop. It has halted at about 22-45 hours and for about 7 or 8 minutes. It again started and picked up speed of about 62, K.Ms., and dropped to about 55 K.Ms., and then picked up speed upto about 70 Kms. Again it dropped to about 62 Kms. and then picked up speed upto about 68 Kms., and then dropped speed to 58 Kms., after which there has been a sudden drop to zero. At about the speed of 58 Kms., it also appears that there has been great disturbance to the tachograph which has resulted in a blotch and a squible (wavy marking) around that zone. This is a marking by the speed stylus i.e., stylus No. 1. From the chart it is seen that the engine had come to a stop at 23.15 hours. The clock has continued to work after that till 21.10 hours next day, when the chart appears to have been removed. The only disturbance to the speed stylus has occurred in the region at about 58 Kms. per hour, which could only happen, when there is a sudden stoppage of the movement of the engine. Towards the end before it has come to zero, the stylus has become steady. If the speed line is vertical it indicates that the engine has come to an instantaneous stop."

6.30.3. The speed indicated on the dial of the tachograph is expected to be recorded accurately by the speed stylus pencil on the tachochart, as the needle on the dial and the stylus pencil are fixed on the same spindle and work in a synchronised manner as indicated in para 4.9.3 of Chapter IV. Though it has been admitted that technically there is a possibility of a small difference between the speed indicated on the dial and that shown on the chart on account of the imperfect fixation of the needle on the spindle, such cases are rare. There is also no data before us to show that the recording of the speed on the tachochart of YP 2646 was anything different from that indicated on the dial of the tachograph at any particular time. Engine YP 2646 was assigned to Driver S. Viswanath and he had not booked any repairs on the tachograph at any time. This tachograph had covered only 19554.4 Kilometres after being fitted to YP 2646 and the only defects noticed were non-synchronisation of the hour and minute hands of the clock and missing of the indicator bulbs. The Learned Counsel for S. Viswanath did not also put forward

the plea of play of the needle on the spindle as the reason for the difference in the speeds indicated on the tachochart and those given in his testimony.

6.30.4. S. Viswanath has deposed that he was regulating the speed of the train, while approaching the Down Outer of Yalvigi, and was gradually reducing it from 45/40 Km.p.h. at the Outer to 40/35 Km. at the time he suddenly applied the brake on seeing the obstruction. This is not borne out by the tachochart as the reduction in speed as per the tachochart is from 68 Km.p.h. to 58 Km.p.h. before the disturbance started. In other words, the difference in speed between the tachochart and that given in evidence by S. Viswanath is about 20 Km.p.h. near about the point of collision, which is not reconcilable.

6.30.5. The Learned Counsel for S. Viswanath cited several arguments to show that the speed indicated by the tachochart might be off the mark on account of incorrect printing of the tachochart, incorrect punching of the central hole and inherent defects in the mechanism. The tachochart shows that the markings are regular and there is no reason to suspect any abnormal behaviour of the speed stylus. All the three stylus pencils have left a clear record in their respective zones and the only disturbance noticed is in the region of 58 Km.p.h. immediately prior to the collision. The diameter of the radial wheel of YP 2646 is also above the mid-diameter for which the tachograph is calibrated and as such the actual speed at any moment should have been slightly more than that indicated on the chart or dial. If we give the full guaranteed margin of tolerance of 3 per cent. and also allow for sluggishness during deceleration, though it is normally covered by the margin of tolerance, it appears that the Driver had possibly exceeded the speed limit of 50 Km.p.h. over the points T-1 at Yalvigi and upto the points of collision by about 10 per cent. This tendency to exceed the speed over facing points and through the station on the main line is also observed by the markings on the tachochart above the 60 Km.p.h. circular indication line when the train was passing through Gudgeri but it cannot be stated, on this round, that the Driver had similarly exceeded the speed, while entering Yalvigi also.

6.30.6. The Driver is guided solely by the speed shown on the dial of the tachograph which is the visual indication of the speed at which he is going. Whatever may be the error of margin guaranteed by the manufacturers of the tachograph, that has no relevance so far as the Driver is concerned. Nevertheless, we cannot hazard a positive conclusion, as the tachochart was removed from the damaged engine nearly 24 hours after the accident and it is difficult to interpret instantaneous variations in speed by reference to the tachochart, as the time scale adopted is much too small. On the material placed before the Commission, we feel that S. Viswanath, Driver of No. 208 Down Express had possibly exceeded the prescribed speed of 50 Km.p.h. while entering Yalvigi but we would give him the benefit of doubt. If any, this is only a technical violation and has no relation to the cause of the accident.

6.30.7. The kinetic energy of the moving train at any point is proportional to the square of its velocity. It will thus be apparent that if the speed of No. 208 Express had been less at least by 10 Km.p.h. the energy to be destroyed at the time of impact would have been about 30 per cent less than at the estimated speed of 58 to 60 Km.p.h. Perhaps to some extent, Driver S. Viswanath would have minimised the nature and consequences of the collision but here again, we are unable to come

to a definite conclusion as it is difficult to conjecture how the kinetic energy will be dissipated.

6.30.8. The next question that arises for consideration is whether S. Viswanath could have avoided the collision at the speed at which he was running or at the prescribed speed of 50 Km.p.h. over the facing points T-1 and through the station on the main line. This is purely determined by the layout of the yard, the conditions of visibility and the points from which the Driver and/or the First Fireman of No. 208 Express can pick up the obstruction on the main line. S. Viswanath has stated in his evidence as under:

"I was by this time near the Point T-1. As I was peeping out, I could just see an obstruction on the line on which I was running. I saw the front of the smoke box of an engine. It was about 50 to 60 metres distant, without any head or side lights or smoke coming out of the chimney."

6.30.9. The Commission conducted tests under controlled conditions on three occasions in circumstances more or less similar to those prevailing at the time of the accident and its observations have been summarised in Chapter IV. It will be noted that, from the left of the cab of the approaching engine, i.e., on the Fireman's side, the obstruction on the main line can be picked up only at a distance of 140.75 metres. On the Driver's side the obstruction can be made out only from a distance of 73.70 metres. This confirms the evidence of Driver S. Viswanath. It is observed from the evidence of B. Narayanaswamy (W. 19), Senior Draftsman, Madras, that a train with a gross load of 345 tonnes will require the following minimum braking distances at different speeds on a level grade:

Speed in km. p. h.	Braking distance in metres
30	123
40	160
50	267
60	357

Yalvigi station is on a level grade. It will be noted that, even at a speed of 30 Km.p.h., the Driver cannot avert the collision, if he picks up the obstruction from his side. If the obstruction is picked up by the First Fireman from his side, the collision may still take place at this speed, as we have to allow for the reaction time of the Driver. The Commission are thus convinced that the Driver of No. 208 Express had absolutely no chance of averting the collision, even assuming that he had applied his brakes immediately on noticing the obstruction.

6.30.10. S. Viswanath has stated in his evidence that the moment he saw the obstruction on the main line, he immediately applied his brakes. This receives corroboration in the evidence of S. V. Srinath (W. 35), G. M. Shah (W. 34), and Prabhakar Ghate (W. 43), who were passengers on No. 208 Express and had experienced certain jolts prior to the collision, indicating application of brakes. John Douglas Robert (W. 16), the then AME, Hubli, has confirmed that, when he examined the engine of No. 208 Express early on the morning of 20th March, 1968, he found the Driver's vacuum handle in the applied position indicating that the brakes had been applied. We are satisfied that Driver S. Viswanath had tried his best to minimise the force of impact by applying his brakes within the very short distance he had at his command. We are also convinced that he was keeping a good look-out and he could not have done anything

better
Km.p.

H. K. T. Iyengar no rule violated

6.31. H. K. T. Iyengar has stated in his affidavit that he observed the position of the signals and found the Down Outer and the Down Main Home signals in the "OFF" position for No. 208 Express. There is no material on record to show that H. K. T. Iyengar disobeyed any rule or instructions pertaining to his duties. On the other hand, he has proved a valuable witness for clarifying the issues before the Commission. There is no speedometer in the Guard's brake compartment and it may be difficult for the Guard to judge marginal excesses in speed and take corrective action.

Finding and staff held responsible

6.32. Para 2(b) of Government of India Ministry of Railways (Railway Board's) Notification No. E(O)—68—API/2—Pt.A dated 22nd March, 1968.

Cause of accident

We are of the opinion that the accident was caused by the reception of No. 208 Down Poona-Bangalore Deccan Express on signals on the main line of Yalvigi railway station, when that line was occupied by No. 215 Up Birur-Hubli Passenger.

Staff held responsible

- (1) D. V. Patil, Assistant Station Master, Yalvigi is guilty of grave dereliction and gross negligence in the discharge of his duty. He is responsible for the accident *vide* Para 6.16 and 6.21 to 6.24 of this Chapter.

Rules violated: General Rule 37, Southern Railway Subsidiary Rule 36(i) (a) and Para 6D of the Station Working Instructions (Metre Gauge) No. 64 dated 3rd December, 1963 of Yalvigi, as amended by Correction Memo No. 1 of 11th February, 1964 and Correction Memo No. 2 of 15th February, 1965.

- (2) HANUMANTHA CHIKKAPPA, Gateman, Yalvigi, is guilty of gross negligence in the discharge of his duty. His failure to take proper action resulted in the accident *vide* Paras 6.18 and 6.25 of this Chapter.

Rules violated: Paras 6D (iii) and 6D (vi) of the Station Working Instructions (Metre Gauge) No. 64 dated 3rd December, 1963 of Yalvigi, as amended by Correction Memo No. 1 of 11th February, 1964 and Correction Memo No. 2 of 15th February, 1965.

- (3) SIDDAPPA HANUMAPPA, Pointsman, Yalvigi, is guilty of gross negligence in the discharge of his duty. Pulling the wrong lever in the Ground Lever Frame by him resulted in the accident *vide* Paras 6-19 and 6-26 of this Chapter.

Rules violated: Para 6D (v) of the Station Working Instructions (Metre Gauge) No. 64 dated 3rd December, 1963 of Yalvigi,

as amended by Correction Memo No. 1 of 11th February, 1964 and Correction Memo No. 2 of 15th February, 1965.

CHAPTER VII

MATTERS BROUGHT TO LIGHT AND THE COMMISSION'S OBSERVATIONS THEREON

Trends in train accidents on the Southern Railway

7.1.1. The Southern Railway has submitted a note on the working of its Safety Organisation and furnished facts and figures for the last five years, showing the declining trend in the number of train accidents, particularly collisions within its jurisdiction as at present constituted. The number of collisions has come down from 13 in 1963-64 to 5 in 1967-68, and those involving Passenger trains from 8 to 2. It is however, observed that the trend is not favourable in respect of 'averted collisions'. This figure, which was 6 in 1963-64, dropped to 3 in 1965-66, but the trend was reversed and it rose to 12 in 1967-68. The figures pertaining to collisions and averted collisions are given below:

Sl. No.	Category of accidents	Southern Railway Number of accidents year wise				
		1963-64	1964-65	1965-66	1966-67	1967-68
1.	Collisions	13	10	10	8	5
2.	Collisions involving Passenger trains : out of Sl. No. 1.	8	5	6	2	2
3.	Avverted Collisions	6	4	3	7	12
4.	Total collisions and avverted collisions	19	14	13	15	17

Safety drive to be kept up

7.1.2. The trend, including averted collisions, does not give any room for complacency. It is a matter of grave concern that there has been a spurt in collisions involving loss of life during the last three months. We have been assured that the Administration has been devoting special attention to the implementation of the relevant recommendations of the Railway Accidents Committee, 1962, accepted by the Government. In the light of the very recent happenings, we must utter a note of caution that the safety driver should be persistently kept up. There is a dire need for continued vigilance.

General decline in efficiency and discipline

7.2. Several factors, which have come to our notice, indicate symptoms of a general decline in efficiency resulting in a gradual erosion of discipline and sense of duty amongst railwaymen. This may be a reflection of the general conditions and trends in the country. It may be that this is the general pattern on the Indian Railways as a whole but the adverse results come to the surface, where other contributory factors prevail. A

few illustrative observations, which deserve attention are outlined below:—

Surprise inspections reveal laxity in performance of duties

(i) The reports on surprise inspections carried out in January, 1968 by the Safety Counsellor, Traffic, Mysore, disclose that irregularities, some of them serious, were common. Conditions appear to have been deteriorating over a period of time. Had the supervision and inspections been thorough and efficient and the staff made to realise their duties, the occurrence of such irregularities, which lead to serious results, would have been minimised. The Mysore Division had become alive to the situation prior to and after the receipt of these reports and took steps to improve discipline and efficiency, but before tangible results could be achieved, the accident at Yalvigi occurred.

Inspections and supervision by Traffic Inspector inadequate

(ii) A perusal of the Inspection Register of Yalvigi station discloses that Yalvigi station did not receive adequate supervision or detailed inspection. It is observed that after the Hubli-Harihar section was attached to the Mysore Division, there was no regular inspection of the station by the Traffic Inspector upto 11th January, 1968, when P. V. Raman (W. 27), TI, Harihar, made an inspection and recorded his observations. It is noticed from the entries in the Inspection Register that the remarks of the TIs are of a routine character and the inspections lack depth. The Safety Counsellor/Traffic, who visited the station on 22nd December, 1967 had, however, made a detailed inspection. The fact that some of the corrections required in the Station Working Instructions had not been noted and reported by the TIs in their earlier inspections discloses an indifferent and routine approach.

Unauthorised absence: Swift and effective action called for

(iii) A check of the service records of the staff working at Yalvigi discloses that several of them had been punished for cases of indiscipline such as unauthorised absence etc. A significant case is that of D. V. Patil, ASM, whose increment was withheld for 6 months in February, 1968 for unauthorised absence from 1st March 1967 to 3rd April, 1967, 14th May, 1967 to 16th May, 1967 and 22nd May, 1967 to 28th May, 1967. He had been punished earlier for similar offences. D. V. Patil was absent without authority very frequently and for long periods during the last two years. For spells of unauthorised absence during the months of March, April, May and June, 1967, the charge memo was issued only on 24th November, 1967, and the punishment was imposed as late as February, 1968. Perhaps this is not an isolated instance. We urge that this aspect deserves to be looked into and every case of unauthorised absence dealt with deterrently so that the staff realise that they should not absent themselves without authority and that every case of unauthorised absence will meet with swift and effective action. Proved cases of infringement of the medical rules should receive adequate attention. At the same time, the Administration should see that adequate relieving staff are available and the staff have the facility of availing authorised leave without delay.

Unauthorised adjustment of rosters and staff leaving Hqrs. without permission to be examined

(iv) It is observed that the staff at Yalvigi had been adjusting their rosters and leaving their Headquarters without permission. B. Venugopal

Naidu, SM, did not avail of his weekly rest on 18th March, 1968 (Monday) in accordance with the roster, though the Rest-giving SM was present. Instead he took compensatory rest on 19th March, 1968, the next day. He also left Yalvigi without permission and was not available for emergency duty at the time of the accident. This resulted in the ASMs E. K. S. Pullay and D. V. Patil, working on 12-hour shift by tacit agreement. The case of Hanumantha Chikkappa, Gateman, is yet another instance of absence from Hqrs. The fact that D. V. Patil marked him present in the muster roll, before he turned up for duty, indicates that such infringements of rules are taken lightly. It is observed from the statement filed by the Railway that the Scheduled roster is often disturbed and compensatory rest availed of on other days to the extent possible, either by local adjustment or by utilising the relieving staff for rest giving purposes. It is also noticed that rest-giving staff are used for relief purposes thus upsetting the rest-giving programme. It is the submission of the Railway that the position has been more or less satisfactory and that instructions have been issued that rest-giving staff are not to be utilised against leave or sick vacancies and where the rest-giver himself has to proceed on leave, he has to be relieved by leave reserve staff. We feel, however, that the position deserves to be examined as unauthorised adjustments in rosters and staff leaving their Hqrs. without authority appear to be common.

Disharmony amongst staff at Yalvigi: Senior Supervisors of high calibre required

(v) There have been reports of disharmony between the Class III and Class IV staff at Yalvigi. The enquiry made by the TI, Harihar, into this case was perfunctory. There must be a sense of urgency in tackling such problems, which may result in infringement of safety rules and lead to accidents etc. The TI of the section should be a live personality and should keep in constant touch with the conditions at stations so that any factor which is likely to affect safety is immediately attended to. This is basically a problem of building up a cadre of Senior Supervisors of high calibre and sense of duty, which has been rightly emphasised in paras 100 to 104 of Part II of the Report of the Railway Accidents Committee, 1962. We suggest that the implementation of the accepted recommendations should be expedited.

Schedule of inspections follow-up action

7.3.1. The Southern Railway have filed a statement showing the details of inspections carried out by the Transportation Officers and Inspectors of Mysore Division from September, 1967 to February 1968. While, by and large, the prescribed schedules of inspections have been carried out during the course of the last six months, it is noted that the TI, Harihar, did not complete his schedule of regular inspections of stations. While we feel that the intensity and quality of inspections is being improved, we emphasize that the inspections at the level of Senior Supervisors should be purposeful and the staff made to realise that their performance is subject to continuous review. We must point out that the machinery in the Division for following up cases of lapses and other aspects noticed during inspections should be streamlined to ensure that action in such cases is swift and adequate. Belated action in respect of inspection notes and lapses noticed by the Senior Supervisory staff and Officers will only lead to a sense of complacency in the staff and breed indiscipline.

Imposition of minor penalties also should be swift

7.3.2. Though the procedure for imposition of minor penalties is not complicated, we have come across a few instances of inordinate delays in taking action. The case of unauthorised absence of D. V. Patil is one such example. There appears to be need to tone up the executive machinery for ensuring speedy finalisation of disciplinary cases.

Station working instructions of Yalvigi not up to date: Procedure suggested for rectification and review

7.4.1. The Station Working Instructions (Metre Gauge) No. 64 applying to Yalvigi were issued on 3rd December, 1963 by DOS and the DASTE, Hubli. Correction Memo No. 1 of 11th February, 1964 and Correction Memo No. 2 of 15th February, 1965 were subsequently issued on the basis of inspections carried out by the Assistant Operating Superintendent (General) and Safety Counsellor, Hubli, respectively. When the station came within the jurisdiction of the Mysore Division on 2nd October, 1966, the Station Working Instructions were countersigned by the corresponding officers of the Mysore Division. The following discrepancies in the Station Working Instructions have come to our notice:—

- (a) There is no reference in the Station Working Instructions to the point indicators at points T.1 and T.5, provided on 7th September, 1965, prior to the formation of the South Central Railway on 2nd October, 1966.
- (b) The Station Working Instructions refer to bell communication with the interlocked level crossing at Km. 423/2, though magneto telephone communication was provided on 16th December, 1966.
- (c) There is no mention of the elevated Look-out Post on the platform in the Station Working Instructions, though it is intended to enable the SM to exchange signals with the Pointsmen on duty at points T.1 and T.5, when either the main line or the loop line is obstructed.
- (d) There are other discrepancies such as the location of the level crossings being given in miles instead of in kilometres, etc.

7.4.2. It has been explained by the Railway that the provision of these facilities does not involve any change in the method of working at the station, they are only in the nature of additional aids and quicker means of communication and that action has since been taken to bring the Station Working Instructions upto date. The Commission are of the view that it is necessary for the Railway to provide up to date Station Working Instructions without delay. The object of taking declarations from staff on duty at the station is vitiated, if changes in the equipment at the station take place and the corresponding provisions are not incorporated in the Station Working Instructions.

7.4.3. The Commission suggests that—

- (i) whenever any change is made in the safety equipment at stations, whether important or not, the equipment should be brought into use only after the requisite corrections are issued to the Station Working Instructions;
- (ii) the organisation for reviewing the Station Working Instructions of stations should be improved so that there is no delay in issuing the corrections; and

- (iii) reviews and inspections carried out by Officers and Inspectors should be purposeful and effective. In particular, it should be the specific responsibility of the TI of the section to go through the Station Working Instructions-carefully. Routine checks and observations are of little value.

Efficiency of control circuits and use of modern methods of Telecommunication

7.5. It has come to the notice of the Commission that the Birur-Hubli section control circuit was interrupted between Kundgol and Hubli from 9.30 hrs. on 19th March, 1968 and that a further fault developed between Harihar and Chalgeri at 19 hrs. on the same date resulting in intermittent bell failures and low level of audibility. It is also observed that Mysore Control had difficulty in maintaining telephonic contact with Yalvigi after the accident. The Commission during its inspection of Mysore Control Office on 8th June, 1968, noticed that three of the four section control circuits were either totally or partially interrupted. It is observed from the statement filed by the Railway at the instance of the Commission that while the efficiency percentage of the Birur-Hubli section control circuit was generally above 90 per cent during the non-monsoon months and about 85 per cent during the monsoon months prior to the formation of the South Central Railway, there was deterioration after the Harihar-Hubli section was attached to the Mysore Division from 2nd October, 1966 in that the performance was consistently below par and the efficiency percentage went down to as low as 69.7 in February 1968 and 70.3 in March, 1968, during the non-monsoon months. This is accounted to some extent by this section control circuit being far away from the Control Office. The Commission believes that, but for the Headquarters of the adjoining Division being very near at Hubli, rescue operations may have been hampered by lack of efficient telephone facilities between Mysore and Yalvigi. Efficient functioning of control circuits is essential for improving train operation and building up discipline and morale. We are glad to note that the Railway has already initiated action to improve the functioning of Birur-Hubli section control by replacing the existing physical line wire circuit by a carrier channel between Mysore and Birur. We suggest that the matter should be kept under review continuously not only on Birur-Hubli section but also on other sections similarly situated and modern methods of improved telecommunication should be quickly provided as efficient means of communications are, in our view, fundamental to railway transportation.

Check of tachocharts

7.6. The procedure prescribed for checking instances of overspeeding by drivers on the basis of tachocharts does not appear to have been implemented effectively. Tachocharts issued to drivers and returned after use do not appear to have been filed properly and studied carefully. This is gathered from the evidence of DME (Divisional Mechanical Engineer), Mysore, (W. 31). A systematic approach is called for, as the purpose in providing these tachocharts is defeated, unless the carts are scrutinised regularly and cases of over-speeding dealt with. The tendency of individual drivers to exceed speed-limits either on the section or at places where they are required to reduce their speed, as at stations equipped with Standard I Signalling, should be detected and the drivers guided. Efficient maintenance of tachographs is, at the same time, essential to inspire confidence in the drivers and enable them to be guided properly.

Training of Class IV staff in safety camps

7.7. The only Pointsman of Yalvigi, who had attended the Safety Camp, is Durga. The scheme of deputing Class IV staff to the Safety Camp commenced in September, 1966. On the Mysore Division as a whole, 263 pointsmen have so far attended the Safety Camp as against the total number of 668. But on the Hubli-Harihar section, only one (Durga) out of 63 pointsmen was deputed to a Camp from the time this category of staff was covered by this scheme. We note that the Southern Railway proposes to take effective steps to wipe out the back-log by deputing the full complement of staff under each category in each session. We suggest that, while detailing staff for training in the Safety Camp, all the sections receive equal and adequate attention, so that safety consciousness is spread far and wide.

Composition and Marshalling Order of trains

7.8.1. The instructions concerning marshalling of TLRs and anti-telescopic/steel-bodied coaches on trains carrying passengers are contained in Railway Board's letter No. 65-TT-IV/48/1 dated 6th May, 1967 and on page 1 of Booklet No. 4 issued by the Southern Railway. The main principles outlined in the Railway Board's letter have been summarised in para 3.7 of Chapter III. The Ministry of Railways and the Southern Railway may consider issuing clearer instructions in this regard.

Certain aspects of Marshalling to be examined

7.8.2. The front TLR of No. 208 Down Express, the second coach from the engine, was a wooden-bodied one, though in accordance with the prescribed composition and marshalling order on page 50 of Booklet No. 4 issued by the Southern Railway, a steel-bodied TLR should have been utilised. The Commission are not aware as to why the authorised steel-bodied coach was not used despite the statement of the Southern Railway that the policy in this matter has been implemented in respect of all the MG (metre gauge) mail and express trains with regard to the front as well as the rear TLRs. The Railway should also examine as to why TLRs with brake compartments leading were not used as the front TLRs on No. 208 Down Express and No. 215 Up Passenger in the manner prescribed in the instructions and take action to avoid such mismarshalling, if feasible.

Shortfall in anti-telescopic/steel-bodied TLRs to be made good by rapid construction

7.8.3. It is observed from the statement of the Southern Railway showing the progress in regard to marshalling of TLR/anti-telescopic coaches, that there is a lot of leeway to be made up particularly in regard to steel-bodied/anti-telescopic TLRs on the MG. While on the BG (Broad gauge), there is a short-fall of 132 steel-bodied/anti-telescopic TLRs, the corresponding number of the MG is 408. The position with regard to the availability of other anti-telescopic coaches appears to be better. In the light of the telescopic action noticed in the coaches involved in the accident at Yalvigi and the vulnerability of wooden-bodied coaches in such collisions, there is a clear need for expediting provision of steel-bodied/anti-telescopic TLRs to remove the shortfall in as short a time as possible. This is particularly essential as TLRs are required to be marshalled one in the front and one in the rear to comply with the rules. We suggest that, in the programme of construction of new

coaches, top priority should be given to the construction of steel-bodied/anti-telescopic TLRs. The Ministry of Railways may consider the advisability of suspending or curtailing the programme of construction of other integral/steel-bodied coaches so that the available capacity is utilised for building more steel-bodied/anti-telescopic TLRs. In due course, the wooden-bodied TLRs may be converted into Third Class coaches, the feasibility of which has been accepted by the Southern Railway.

Emergency equipment on trains and rescue equipment in medical relief vans

7.9.1. It is in evidence that No. 208 Express did not have emergency lighting equipment. The Railways should ensure that Passenger trains do not run without the essential emergency equipment required to be provided.

7.9.2. With more of steel-bodied/integral coaches coming into use, there is need to review whether the tools in the Emergency Tool Box with the Guard are adequate. In the steel-bodied coaches, it is difficult to rescue passengers trapped inside. This is what happened at Yalvigi. It is suggested that the Emergency Tool Box with the Guard should also have implements, which may be needed for use on steel-bodied coaches.

7.9.3. It is desirable to provide minimum essential equipment required for rescue operations such as gas-cutting equipment, portable ladders, emergency lighting equipment, cutting tools, loud speaker arrangements, water drums etc. in the Medical Relief Vans, if necessary, by attaching auxiliary bogie coaches. We found that in the case of this accident, till the Break-down Special arrived sometime after the Medical Relief Van, these equipments were not available for use. The Ministry of Railways may have this examined further and take suitable action.

Recording of names address and statements of passengers: organisation of enquiry cum information centre

7.10.1. It is observed that, at Yalvigi, no attempt was made to note the names and addresses of passengers or to record the statements of any of them inclined to give information relating to the accident. We suggest that executive instructions should be issued that, in cases of serious accidents, the names, addresses and statements of passengers inclined to co-operate should be recorded. This may be of assistance later to the Additional Commissioner of Railway Safety or others.

7.10.2. In cases of serious accidents, it is advisable to organise at site an enquiry-cum-information centre, wherefrom correct information can be given, passengers attended to and announcements made on the loud speakers regarding running of relief trains etc.

Evidence of Shri H. B. Kadim Divan, Advocate Shiggaon

7.11. Shri H. B. Kadim Divan (W. 42), Advocate, Savanur, (Residence: Shiggaon), gave evidence before the Commission. We regret that his testimony is not consistent with the other evidence on record and is far from truth. We deem it sufficient to make these remarks and refrain from taking any other action in view of the fact that he is young man with a future before him. It is expected that witnesses who offer themselves to be examined by the Commission will assist the Commission by giving an impartial and true account of what they witness.

CHAPTER VIII

SUGGESTIONS REGARDING SAFEGUARDS AGAINST SIMILAR ACCIDENTS AND CONNECTED ASPECTS**High sense of duty surest safeguard against accidents**

8.1. The accident at Yalvigi is the result of grave dereliction of duty and gross carelessness. The signalling and interlocking equipment provided at Yalvigi is adequate and sufficient for the purpose of ensuring safety, in view the density of traffic on the section. Whatever the type of signalling, accidents cannot be eliminated unless the men responsible for working them are careful and adhere to the procedure prescribed. The surest safeguard against similar accidents is for the staff entrusted for working them are careful and adhere to the procedure prescribed, with the reception and passing of trains to be constantly vigilant and display a high sense of duty in the performance of these important functions. We note that this is the view of the Southern Railway also.

Need to check erosion in discipline

8.2. The recent spate of accidents on the Indian Railways, involving loss of life, indicates the urgency with which this problem of inculcation of a high sense of duty has to be tackled. We have observed that there is a general decline in efficiency and a growing tendency to ignore discipline. The Railway Administration have outlined several steps taken by them in pursuance of the recommendations of the Railway Accidents Committee, 1962, to develop qualities of high sense of duty and vigilance in train operation. It is a matter of grave concern that the action taken so far has not proved adequate.

Three issues connected with efficiency

8.3. The victims of negligence of a railway servant connected with the running of trains are innocent passengers. Safety of the travelling public has to be effectively ensured, if the implicit trust placed by the travelling public in the Railway is to be discharged. To maintain the efficiency of the railway staff connected with the safe running of trains, besides providing welfare measures to keep them contented and free from anxiety, and enabling them to concentrate on their duties, it is necessary that

- (i) the men employed are adequately trained and made aware of their duties and responsibilities;
- (ii) effective steps are taken to ensure that the employees discharge their duties properly; and
- (iii) no slackness, negligence or remissness in the discharge of their duties is countenanced.

Action taken on first two issues

8.4. The note on the suggestions for prevention of similar accidents, filed by the Railway, indicates that the first issue is receiving their attention. Subject to our observations in the previous chapter, we wish to emphasize that careful training and conducting refresher courses, including safety camps, prove useful. The Railway Administration has also covered the second issue in their note. However, we wish to make certain observations on the need for effective and surprise inspections. These are contained in para 8.6.

Third issue enforcement of discipline: Submission of the Southern Railway

8.5.1. We now come to the issue of enforcing discipline. There cannot be two opinions about the need for prompt and deterrent action being taken against a person guilty of negligence causing or likely to cause any danger to the safety of the travelling public. Belated action taken against the erring person, long after the event, is ineffective. One aspect of the matter that has been emphasized before us is the cumbersome procedure that is now required to be followed on the Railways for taking disciplinary action involving imposition of major penalties. An extract from the note on suggestions for prevention of similar accidents submitted by the Southern Railway is reproduced below:—

* * * *

“In the operation of a Railway, the highest sense of duty and devotion to work, especially amongst the staff entrusted with the running and passing of trains, are of utmost importance. Without such a sense of duty, they would be betraying the sacred trust reposed in them for the safety of millions of passengers. A high standard of discipline amongst staff next only to that which obtains in the Armed Forces is necessary for developing a sense of duty and alertness, a habit of rigid adherence to set procedures and implicit obedience of orders issued from above. In the absence of the discipline, staff develop a tendency towards shortcircuit methods and slovenliness.

Considering the magnitude and complexity of the operation on the Indian Railways, the Railwaymen, by and large, have continued the traditions of devotion to work. However the few signs of erosion of the high standards in discipline and morale which are gradually appearing cannot be ignored. This has been partly due to the formation of several sectional and group associations and unions as distinct from the recognised Labour Unions on the Railways. There are not men wanting, both amongst staff as well as outside, particularly from outside, who, to serve their own ends and for winning the support of such Railwaymen, are only too anxious to espouse “Group” interests and exploit their sense of grievance. This has naturally led to a falling off in standards of discipline and morale, and what is more, created loyalties and channels of representation other than what are healthy for maintenance of good discipline.

There is also a tendency for deliberately prolonging the set procedure laid down for imposition of penalties under Discipline and Appeal Rules. The procedures themselves have become more quasi-judicial in complexion, a development which has contributed towards delay in the award of punishments even in cases where the responsibility of an employee in causing an accident is beyond doubt. While there could be no question that reasonable opportunities should be afforded to the person whose conduct is under enquiry to defend himself fully against a charge, the procedures for disciplining staff in an organisation like the Railways as distinct from other Civil Services, should not encourage dilatoriness to the detriment of enforcing the necessary degree of discipline.

Evolution of Discipline and Appeal Rules

8.5.2. We have gone into the evolution of the Discipline and Appeal Rules on the Railways over the past two decades and find that instead of a procedure providing for a simple and quick method of enforcing discipline, a complicated and time-consuming process has developed. The inquiry procedure in cases relating to imposition of major penalties has become involved and the pre-inquiry formalities have also become cumbersome and cause inordinate delays. In regard to cases of accidents the inquiry held to determine the causes and staff responsible, if any, formerly considered sufficient for purposes of initiating disciplinary action. A major change introduced has been the need for a second disciplinary inquiry before the second opportunity is given to show cause against imposition of a major penalty.

Prescribed procedure time-consuming

8.5.3. It is observed from an analysis prepared by the Southern Railway that it takes about 165 days for the Divisional office to impose a major penalty within its competence, assuming fairly efficient processing at every stage, making due allowance for the fact that officers and staff have other duties to perform. If the case requires reference to the Headquarters office of the Zonal Railway, the period goes up to about 208 days. This optimum level of performance is seldom achieved and cannot be enforced in practice. This period does not include the further time taken in the disposal of appeals against the order of the authority imposing the penalty.

Observations of Railway Accidents Committee, 1962 on need for simplified Procedure

8.5.4. The need for prompt and deterrent punishment in the case of lapses relating to disregard of safety rules, which may or may not result in accidents has been dealt with at length in the Report of the Railway Accidents Committee 1962, Part II. Para 105 of the Report contains the Committee's observations, which bear repetition:

"105. Imposition of penalties-(i) Procedure, cumbersome and dilatory. We have noted, in Part I of our Report, the heavy delays that took place on different Railways in finalising accident cases. We consider that one of the most effective methods, by which the staff can be made alert and vigilant in the performance of their duties, is that their lapses into unsafe working should be met with prompt and deterrent punishment. We do not suggest that punishments by themselves are enough, or that they provide the sole remedy for the prevention of accidents, but we are clear in our minds that, keeping in view the present state of the sense of responsibility amongst the Railway staff, particularly of those in lower grades, no programme of accident prevention based on better training, effective supervision and improved safety aids will suffice unless backed by the imposition of swift and severe punishment on those found disregarding safety rules which may, or may not, result in accidents.

Disciplinary procedure for imposing penalties of dismissal, removal or reduction in rank is governed by Article 311 of the Constitution of India. According to this Article, no employee can be reduced, removed or dismissed from service unless he has been given a reasonable opportunity of showing cause against the action proposed to be taken. In order to comply with this Constitutional provision, and as a result of legal interpretations, commentaries and incessant codifications, an elaborate cumbersome and time-consuming procedure for the imposition of these penalties has developed on the Railways. In case of accidents, first a Fact

Finding Enquiry Committee is appointed which ascertains the causes and fixes the responsibility for them. After the acceptance, by the competent authority, of the findings of this Committee, a charge-sheet is served on the defaulting employee who is required to give his defence within a specified period. After this, a disciplinary enquiry is held in which he is treated as an accused and given the facility of being defended by a counsel who may be a railway employee or an outsider who is an official of a recognised Trade Union. The defence counsel has the right to cross-examine the witnesses. After the submission of the findings of the second Enquiry Committee, the competent authority, if it decides to impose the penalty of reduction in rank, removal or dismissal from service, has to issue a show-cause notice giving a further opportunity to the accused to submit his explanation. The employee, while doing so, is entitled to ask for being heard in person, accompanied by a defence counsel. It is only after hearing his defence, that the competent authority can decide the quantum of punishment. This procedure entails heavy delays not only on account of the lengthy procedure but also because the accused generally uses evasive tactics by delaying replies or reporting sick or choosing a person as his defence helper who is not readily available. The frustrating delays caused by the resourceful ingenuity of the accused and his defence counsel, the harassment and pressures to which the disciplining officer is subjected, the pressure on his time because of his other official work, and the uncertainty about the ultimate outcome of his labours which may be acquittal in a departmental appeal or by a Court of Law, make the imposition of severe penalty, a nerve-racking experience for the officers. It is no wonder that the officers pursue the line of least resistance, by imposing only minor and inadequate punishments. The result is that punishments have ceased to be effective and have lost their deterrent effects on other staff.

In this connection, we quote the views of a retired Member (Staff) of the Railway Board:—

“To import the ideas of legal action into administrative cases is neither necessary, nor practical, nor indeed justified. In most cases of disciplinary action, there is very little ambiguity in respect of the lapses which have occurred nor indeed of the person responsible for them under the rules and the system of working adopted. The requirements of administrative justice will be amply met if the employee is told of his lapse, given a reasonable opportunity to urge what he has against the charge and to prefer one appeal against any penalty which may be inflicted.”

“To look for cent per cent conformity to absolute justice in administrative matters is to run after a mirage. Even in the legal system, this does not obtain and to strain for it in administrative matters is to abandon the main aim of administration to deal expeditiously and competently with running an undertaking at a reasonable level of efficiency.”

(ii) Suggestion for Abbreviated Procedure:—We, therefore, recommend that when it is proposed to impose a penalty of reduction in rank or grade on an employee, found responsible for causing an accident, he should not be given the benefit of a second disciplinary enquiry. After the responsibility is fixed by the Fact Finding Enquiry Committee, a show-cause notice should be issued. In submitting his defence, he should be given a personal hearing, accompanied by a defence helper, if desired by him, after which the competent authority should pass the final orders. In the procedure suggested by us, the accused employee is not being deprived of any reasonable opportunity to present his case and safeguard his interests. As regards lower punishments, we understand that there

is an abbreviated procedure for the imposition of minor punishments such as stoppage of all privileges and withholding of increment, when the staff is detected by an officer as having indulged in unsafe working, during the course of inspections. We consider that the same procedure should be applied by a Committee of Enquiry when an employee is held responsible for causing an accident.

(iii) Summary Powers:—Another suggestion we make in this connection is about the summary powers exercised personally by the General Managers for removing an employee from service, by giving him a notice under the terms of his service agreement with the Railways. In these cases prior approval of the Railway Board is obtained conventionally. We strongly feel that a General Manager should have a free hand to deal with his staff found causing accidents without having to wait for Railway Board's approval. In fact, we would go a step further and suggest that the powers to remove an employee from service under the terms of service agreement should be delegated to the Heads of Departments. We hope that it will not be necessary to use these powers extensively but the very fact that such powers are within the competence of the Heads of Departments will have a salutary and deterrent effect."

Welfare activities on Railways outlined

8.5.5. The Railway Administration has provided a number of facilities to their employees which are conducive to their happy and contented living. On the Mysore Division of the Southern Railway, over 80 per cent of the staff classified as 'essential' have been provided with quarters. Extensive medical facilities for the employees and their families including running of subsidised hostels, pass privileges, recreational facilities, running of Consumer Co-operative Societies, Staff Benefit Fund, to which the Railway allots funds at the rate of Rs. 4.50 per employee and which is utilised for assistance to staff for various purposes by a Committee with representatives of organised labour as members, are some of the items of welfare, which railway staff enjoy. There is a separate Welfare Organisation intended to establish personal contacts with staff, ascertain their personal problems and difficulties, find solutions to the extent possible, expedite disposal of representations from staff and promote extensive utilisation of the facilities provided by the Administration for the welfare of staff.

Atmosphere of enlightened conscious and Effective Public Opinion necessary

8.5.6. In spite of the facilities enjoyed by the railway employees, there is lack of adequate realisation of the duties and responsibilities, which they have to shoulder. To check this, there is an urgent need to develop and maintain a sense of pride in railwaymen in their avocation so that safety becomes an ingrained habit and devotion to their duties becomes a second nature. This is a task which falls exclusively in the sphere of action of the Indian Railways. It would be advisable to intensify the efforts they have been making in this direction. But railwaymen can be expected to develop the requisite sense of pride, responsibility and devotion to duty only in an atmosphere of enlightened, conscious and effective public opinion, which realises that the safe working of the railway system depends on the operation of hundreds and thousands of railway personnel at various levels. The public have not only to disapprove of lapses on the part of railway staff but also realise that Railways can successfully work only with their co-operation. This task deserves the close and co-ordinated attention of the Railways, the public, the press

and the Government. All possible means of mass communication and educative media including radio and television should be harnessed to achieve the desired result.

Framing of Rules under Article 309 of the Constitution or Amendment of Article 311 of the Constitution recommended

8.5.7. This process of education and creation of an appropriate public opinion should go hand in hand with the implementation of a quicker and more effective system of fixation of responsibility and punishment for delinquency. The railway services, particularly those categories of staff, who are connected with the safe running of trains, and consequently with the safety of passengers, may be deemed to constitute a class by themselves, because of the nature of their work and the serious consequences that follow from any negligence in the discharge of their duties. It is, therefore, to be examined if it would be in accordance with the constitution to frame special rules under Article 309 of the Constitution for regulating discipline in such staff and following a very much simplified but effective procedure in dealing with those who err or who are inclined to err and endanger the safety of the passengers. We see no reason why the railway employees connected with the safe running of trains should not be treated as a class by themselves in the same way as the civilians who hold posts connected with the Defence Services. If the framing of the rules is not permissible under the Constitution, then in the interest of the general safety of the passengers and goods, we recommend that the categories of staff connected with the safe running of trains should be excluded from the purview of Article 311 of the Constitution.

Better Administration of Welfare Activities

8.5.8. While imposing quick and deterrent punishments for offences connected with safe operation, the Administration should streamline its welfare activities and see that the staff are enabled to function in a satisfactory environment. Timely payment of wages and allowances due, grant of leave and other facilities in time, expanded provision of educational facilities and better administration of welfare activities should go a long way in developing duty consciousness and enable the staff to concentrate on their work.

8.5.9. In the absence of any material, the Commission does not propose to comment on the observations of the Southern Railway on trade union activities in the second para of their note extracted in para 8.5.1. of this Chapter. This is a matter for the Ministry of Railways to consider at the highest level.

Inspections: Surprise Element: Quality of Supervisor

8.6.1. The Railway Administration in their note on suggestions for prevention of similar accidents, state as follows:—

“The Railway Accidents Enquiry Committee 1962, had commented on the predominance of human failure as a cause for accidents; and had suggested various measures for improving the position in this regard such as better methods of recruitment, greater care in the selection of supervisors, imparting adequate and careful initial training, the intensification of periodical refresher course, provision of opportunities to persons with initiative to come up to supervisors’ level,

larger percentage of direct recruitment to intermediate grades etc. This Administration has been devoting special attention to these and allied matters."

* * * *

"For assisting supervisory staff in making thorough inspections a revised Manual of Inspection of Stations furnishing guide lines for inspection has been introduced."

This indicates that the Railway are implementing the relevant accepted recommendations of the Railway Accidents Committee, 1962. The Commission has, however, pointed out in Chapter VII that lack of capacity in the Supervisor and indifferent supervision and inspection have been prevalent on some sections. This highlights the need for vigorous implementation of the accepted policies by the Railway Administration.

8.6.2. During inspections, if any lapses are noticed, the reason for such lapses must be first ascertained and difficulties, if any, pleaded by the concerned employees must be appreciated. Action must promptly follow either by way of imposition of penalties or in removing the practical difficulties brought to light.

8.6.3. Surprise inspections are essential if the staff are to realise that it does not pay to disregard safety provisions or adopt short-cut methods. The most important element of surprise would never be there, if inspecting officials reach the stations by trains. We suggest that extensive use of road transport should be availed of for making surprise inspections. The purpose would be better served, if the inspecting officials visit the stations at the time when arrangements are being made for the reception, despatch or movement of trains, by the station staff. The Railway Administration has to ensure that such surprise inspections are intensified and conducted throughout the Railway and the inspecting staff are provided with requisite funds.

Provision of Standard III MAUQ Signalling and Signal Arm and Light Repeaters at Yalvigi

8.7. The Railway, in keeping with the existing policy, has programmed replacement of the signalling gear on the Hubli-Harihar section with Standard III Multiple Aspect Upper Quadrant Signalling with an elevated central cabin suitably located on the opposite side of the station building with a clear view of the signals and lines. The Station Master will have electrical slide control on the appropriate reception and despatch signals. The Commission suggests that this may be expedited. In the meantime, the provision of signal arm and light repeaters for the Down Home signals in the SM's office may be considered.

Track Circuiting only fail-safe method for preventing accidents of Yalvigi type

8.8.1. The accident at Yalvigi railway station was caused by the reception of the Express train on signals on the main line, which was occupied by the Passenger train. This was due to human failure on the part of the ASM and other staff at the station. To have a fool-proof safeguard against this type of human failure, it is essential to make it impossible to take off signals for the occupied line. The only satisfactory and fail-safe arrangement to ensure this is track circuiting of the reception lines though

this is no proof against accidents caused by drivers running past signals at danger. The observations in para 127(i) of the Report of the Railway Accidents Committee, 1962, Part II, support our view that an accident, of the type that occurred at Yalvigi, can be prevented by track circuiting of the reception lines at stations. It was further suggested by that Committee that obstacles in the way of implementing the programme of track circuiting, such as lack of wooden or concrete sleepers, should be surmounted by research and experiment. We are aware that the basic recommendation, that track circuiting has to be resorted to extensively in the interests of safety, has been accepted by the Ministry of Railways and is being implemented progressively. A beginning has been made by the provision of track circuiting on run through lines on important trunk routes.

8.8.2. Though the Bangalore-Hubli section may not qualify for the provision of track circuiting on the run through lines in the near future on account of lower density of traffic, the Railways should examine and draw up a list of wayside stations, where, on account of curves and other adverse conditions of visibility, it is desirable to provide track circuiting. Each Railway may draw up such a programme to be implemented in different stages, the highest priority being given to stations on the main lines like Yalvigi, where conditions of visibility are admittedly difficult. The Railways may, after careful examination, limit the number of stations to be taken up under this programme but it is essential that difficult stations such as Yalvigi should be covered in the first phase.

Consideration and adoption of other methods

8.9. It is realised that adoption of fail-safe methods like track circuiting the run-through lines at all stations will take considerable time. Meanwhile, the feasibility of adopting the following methods may be explored:—

Use of trans-receivers as aids in preventing accidents

(i) A suggestion that has come up for consideration is the provision of VHF wireless trans-receivers on all running locomotives with suitable arrangements by which coded impulses are transmitted by the locomotive standing on the main line at a station. These impulses will be received by the trans-receivers fitted in locomotives of approaching trains within a range of 2 to 3 Km. and made to operate a buzzer and, if necessary, give a visual indication to the driver. Broad details of the scheme were drawn up during the course of our discussions with Messrs Bharat Electronics Ltd. There may be several short-comings in this scheme to be tackled and overcome. It may not appear to be fail-safe. A reference made by the Commission to the RDSO, Lucknow, has not evoked a favourable response. In the discussions with the General Manager and the Heads of Departments of the Southern Railway, it has been accepted that it may be technically feasible to evolve such a scheme of providing trans-receivers but it is doubtful whether it will be fail-safe and prove adequate for the purpose in view. The General Manager was anxious that a false sense of security should not be created by the provision of equipment, which would at best be only an aid and not confer positive protection. It was also stressed that drivers should be guided by signals, in which they should have complete confidence, and it would not be prudent in the long run to burden the drivers with additional responsibilities. The Commission had also the benefit of discussing this matter with the Additional Commissioner of Railway Safety, Bangalore. While realising the limitations of the suggestion, the Commissioner agreed that it might be

worthwhile to try it out on a limited section as a pilot project. Wireless equipment is used extensively for telecommunication purposes on Railways in other countries and trans-receivers, being a versatile equipment, can be adapted not only for the limited purpose in view but for other essential telecommunication uses on the Railways. We would therefore commend that, inspite of some shortcomings, the idea should be developed and tried out by the Ministry of Railways in association with Messrs Bharat Electronics Ltd. and other institutions.

Limited Realignment of Yards to improve visibility

(ii) Another suggestion that has come up for consideration is realignment of station yards with the object of improving visibility of approaching drivers. An investigation carried out by the Southern Railway at the instance of the Commission has disclosed that it might cost nearly Rs. 30 lakhs to straighten the track at Yalvigi. Such a course of action is neither practicable nor desirable as the outlay can as well be spent on track circuiting the run through lines at a larger number of stations. We would, however, suggest that, where conditions of visibility for approaching drivers can be improved by slight realignment of the track, not involving heavy outlay, the Railways may consider the advisability of taking up such works. This principle should, however, be kept in view whenever new stations are laid out or existing stations remodelled.

Reduction of permissible speed through stations like Yalvigi

8.10. As the provision of fail-safe arrangements is likely to take time, the Commission has been examining the alternative of reducing the maximum permissible speed on the main line at such stations, where conditions of visibility are extremely limited. The Commission appreciates that reduction in permissible speed, not warranted by the standard of track, rolling stock or signalling, will be a retrograde step. But from the point of view of averting accidents and ensuring safety in travel, till better systems are introduced, the Railways should consider the advisability of reducing the maximum permissible speed on the main line for 'run through' trains at stations like Yalvigi. The Additional Commissioner of Railway Safety, Bangalore, and the General Manager, Southern Railway, in their discussions with the Commission, were of the view that, apart from operational aspects, limitation of speed unrelated to standard of signalling, will impose an undue psychological burden on the drivers, who will be required to observe different speeds at different stations on the same section. Their confidence in the integrity of signals will be shaken and this will prove detrimental in the long run. They suggested further that conditions of working should be made easier for the drivers and no additional burdens, not warranted by standard of signalling etc. should be thrust on them. We accept that basically this approach is sound but at the same time, the Railways have to discharge the trust reposed in them by the travelling public. From the point of view of safety, we recommend that the need for reducing the maximum permissible speed at stations like Yalvigi should be looked into. The extent of reduction to be enforced as well as the selection of stations, where speed is to be reduced, are matters to be decided by the Railways.

Certain modifications suggested in prescribed procedures at stations

8.11. We have examined whether any of the rules for the reception and despatch of trains can be modified, so as to make the staff follow the prescribed procedures and at the same time have the opportunity of

rectifying mistakes before a serious accident occurs. The Commission recommends that the following suggestions may be examined:

(i) At stations equipped with Standard I Lower Quadrant Signalling, it may be stipulated that the instructions issued to the pointsman deputed to the outermost points at either end and to the Middle Duty Pointsman, if any, should be issued in the presence and hearing of all the staff concerned, as in the case of non-interlocked working, vide para 3 of Appendix X Part I, General and Subsidiary Rules of the Southern Railway.

(ii) Exchange of "All Ready" signal with the Pointsman at either end should be done by the SM on duty, standing on the line on which a train is to be received. This will enable the SM to verify whether the intended line of reception is clear and free from obstruction. Where conditions of visibility are restricted, the SM on duty must take his stand at a place from where he can clearly exchange "All Ready" signal in accordance with the instructions in force. The need for the retention or provision of Look-out Posts may be reviewed in the light of this suggestion.

(iii) Though the existing Southern Railway S.R. No. 14(iii)(h)(3)(ii) does not require verification of point indicators for signalled moves at stations like Yalvigi, this rule may be modified so as to make it obligatory for the SM on duty to verify the setting of the points by checking the point indicators, while exchanging "All Ready" signals.

Safety Drills at stations

8.12. In order to ensure that the staff at stations realise the value of disciplined working in accordance with the prescribed procedures, it is suggested that safety drills may be conducted at stations at regular intervals. The intention is that a set of hand-picked officials, who are conversant with the rules and procedures, should visit stations and replace the regular SM/ASMs by turn. This team should work round the clock for two or three days at a stretch and drill all the Class IV staff at the station into following the correct procedures. During these drills, efforts should be made to find out if short-cut methods are prevalent at particular stations and appropriate action should be taken to rectify the defective procedures, if any. The team may have the assistance of a few hand-picked Class IV staff, who will be useful in educating the other Class IV staff at the stations. Such drills will also disclose omissions, if any, in the Station Working Instructions and practical difficulties in the working of the station, which can be rectified taking into account local conditions. What is suggested is a practical approach in enforcing rigid adherence to the prescribed procedure and training at site which alone can result in a reduction in the number of accidents. We recommend that this suggestion, with such modifications as may be deemed desirable, be developed and implemented.

Amendment of Rules relating to handling over of tokens to run through trains

8.13. Two other methods are also suggested with the object of averting serious accidents:

(a) The Western and Central Railways have prescribed a procedure by which the outgoing token for run-through trains, passing on the main line, is handed over at the outermost facing points. On both the Railways, it is specified that the 'authority to proceed' must be delivered from the stand provided at the outermost facing points by one of the station staff in uniform. This procedure is not, however, applicable to stations on the

Western Railway where the maximum permissible speed of run-through trains is restricted to 30 Km. per hour or less. It is also specified by the Western Railway that the Warner/Distant signal must not be taken off, until the 'authority to proceed' is ready for delivery at the appointed place. On the Central Railway, it is further required that, if the driver does not find the line clear hoop to be picked up, he should immediately stop the train and take steps to obtain the token from the SM. The S.Rs. in force on the Western and the Central Railways can be pieced together and made applicable to all the Zonal Railways.

Drivers and Guards of first arriving trains to look out for signals taken off for crossing trains

(b) The contents of Southern Railway circular No. T.156/P/1/Vol.2 dated 8th January, 1965 should be made mandatory so that the Driver and Guard of the first arriving train invariably look out for the signals taken off for the crossing trains, i.e., the second arriving train. We had a discussion on this issue with the Additional Commissioner of Railway Safety, Bangalore, who referred to a similar rule, which was in force some time back on the Central Railway. The S.R. then in force on the Central Railway appears to have been deleted as a result of the unified instructions issued by the Railway Board but there appears to be no reason, why this rule cannot be enforced, when it has stood the test of time. It is of course necessary to ensure that the responsibility for safe reception of trains is exclusively borne by the SM but it is equally important to prevent accidents by inadvertent action. It has been argued that when the Driver and the two Fireman are engaged in some jobs on the engine, for which the presence of all the three persons is required, it may be difficult for them to watch the aspect of signals. Such occasions, when the services of all the three, are required simultaneously, are rare. As safety is paramount, we feel that, even in such circumstances, either the Driver or the First Fireman should keep a look out for the aspect of signals. We suggest to the Ministry of Railways that they may consider the desirability of framing a rule making it obligatory for the Guard and the Driver of the first arriving train to watch for the aspect of signals for the crossing train and take appropriate action, where necessary.

Additional items of research to be undertaken: Use of low alloy high tensile steel: Expansion of RDSO

8.14.1. Two Deputy Directors of the RDSO, Lucknow, have deposed before the Commission on coach designs and related research work carried out in their institution. Further discussions were held with the AD SM, RDSO, Lucknow, when the Commission visited the Integral Coach Factory, Perambur. In addition, the Ministry of Railways gave their clarification on two issues, which had been raised before the Commission and which had been referred to them through the General Manager, Southern Railway. After careful consideration of the matter placed before us and the clarifications given to us in our discussions, we recommend that the following proposals should be carefully examined and followed by prompt and appropriate action.

Research into dissipation of kinetic energy

(i) No research is being done at present on the dissipation of kinetic energy at the time of collisions, derailments etc. Such research may reveal significant factors, which may have a bearing on the design of rolling stock and tend to reduce the effects of collisions etc. Though the

forces generated in a collision may, according to evidence on record, be largely indeterminate, a technical study of a large number of accidents may reveal a pattern, which may lead to the evolution of designs, that can minimise the adverse effects of collisions, derailments etc.

Research into destruction of momentum and improvement in brake efficiency :

(ii) The related problem of destruction of momentum, before the collision takes place, is another field, where research may indicate the utility of incorporating certain features in the designs of rolling stock, which will help in absorbing momentum. Such research may also cover methods of improving the efficiency of the braking system in use on Indian Railways or introducing other systems. Consistent with the limitations imposed by design and other allied factors, modern technology and applied research may reveal practicable methods of destroying momentum and improving brake efficiency.

Obligatory study of rolling stock and equipment involved in serious accidents by RDSO :

(iii) The main features of the collision at Yalvigi have been outlined in Chapter III. The similarity in the telescopic action on the coaches of the two trains involved in the collision and the ability of the engine end of the first coach on each train, which were integral/steel-bodied, to withstand the force of impact, lead to the inference that to a certain extent the pattern of behaviour of the rolling stock involved in collisions may be determinable. The Third coach on No. 208 Express, viz, the First Class coach of integral design, behaved predictably and withstood the impact successfully. The passengers travelling in this coach were saved. The coaches involved in this collision were examined on the 24th March, 1968, i.e., on the fifth day after the collision, by the officias of the Integral Coach Factory. Certain photographs taken by the I.C.F. have proved useful. The Commission feels that in cases of serious accidents, the rolling stock and other equipment should, without exception, be subjected to regorous technical examination from the point of view of the behaviour of the members and materials used in the construction and appropriate lessons drawn therefrom. It will be worthwhile for the RDSO and the production units to be associated with such investigations from the outset, instead of waiting for references from the Zonal Railways. It is for the Ministry of Railways to follow up this suggestion, issue instructions and evolve machinery for a continuous study on the lines suggested. Where the RDSO is not in a position to depute its officers immediately to the site of an accident, executive instructions may prescribe the data to be collected by the Zonal Railways, the types of photographs to be taken and the details of evidence to be preserved for th RDSO to pursue their studies further. This would obviate delays in restoration of communications. Such studes studies over a period of time will provide a wealth of data for improving designs of rolling stock and other equipment. Our recommendation is that such studies should be regular, systematic and comprehensive and it should be obligatory for the appropriate wings of the RDSO to conduct them.

(iv) We note that the RDSO conduct a continuous review of the designs of rolling stock and fixed structures, keeping in view the changing conditions in the field of transportation and that the RDSO keep abreast of the technical developments in the various fields of railway engineering and bring to bear their knowledge of the latest technical advances on their work including design and development of various types

of equipment used on the Indian Railways. The studies suggested in the preceding para from the point of view of safety will no doubt be a desirable step in the same direction.

Use of low alloy high tensile steel :

(v) The Commission notes that it is proposed to utilise low alloy high tensile steel in the manufacture of coaches to give additional strength. This is dependent on the manufacture of such steel by Messrs. Hindustan Steel Ltd. By coordinated action, the availability of such steel may be expedited so as to improve the safety factor in the design of coaches.

Rapid expansion of RDSO recommended :

8.14.2. The Indian Railways, one of the most extensive systems in the world, have a predominant role to play in meeting the expanding transportation needs of the country. We are living in a speed age. The Indian Railways have to considerably improve their performance to stand comparison with those of several other countries in the world. A beginning has, no doubt, been made for improving the speeds. There is also the need for tackling problems arising as a result of the introduction of electric and diesel locomotives, running of heavier and longer freight trains and corresponding introduction of devices to ensure safety at higher speeds with heavier loads. The evidence before us indicates that there is considerable scope for expansion of the activities of the RDSO covering various aspects of railway working, as well as fundamental research in fields, which are not covered by other research institutions in the country. There may even be need for setting up more research institutions on the Indian Railways to specialise in specific fields. The Railway Accidents Committee, 1962, have devoted a complete chapter on research, in Part II of their Report, and emphasised that the tempo of development in the existing RDSO has not been and may not be adequate for meeting the increasing demands of the railways and the country, which looks to the railways as the main means of bulk transportation. The analogy of the Railway Technical Research Institute of the National Railways in Japan has been quoted to emphasise the fact that the plans for the expansion and development of the research organisation of the Indian Railways have been so far meagre and inadequate. We are advised that a blueprint for the expansion of the RDSO over the next ten years has been drawn up and submitted. We recommend that the efforts of the Railways in India to modernise and provide improved and safe transport should be backed by an adequately equipped and greatly expanded research organisation.

Psycho-technical cell : Work assessment cell : Environmental Research :

8.15.1. We note a beginning was made in March, 1964, to establish a small Psycho-Technical Cell in the Railway Board's office. It has at present a complement of two Scientific Officers and two Research Assistants on full time basis, apart from clerical staff. In view of the fact that human failure is mainly responsible for accidents and there is need to eliminate staff who are accident prone from categories dealing with the movement of trains, Psycho-Technical research and utilisation of modern methods of psycho-analysis in recruitment and training of the right men for the right jobs are urgently required. The work in the cell in the Railway Board's office has to pick up considerable tempo and should be expanded to cover the varying conditions in different parts of the country.

8.15.2. It appears that so far the problem of the capacity of the average worker for intensive work in a short spell of time has not been studied on scientific lines in the Indian Railways. For instance, an SM or a Pointsman may have long periods of inaction followed by intensive work in a short spell of time. The inherent capacity of the individual staff may impose a limit beyond which the average worker may not be able to discharge his work efficiently or safely in such periods of concentrated activity. It will also be useful to assess the work load of different categories of staff on the Railways on more scientific lines. We suggest that research cells to study the work load of staff of various categories and their bearing capacity for intensive work should be set up.

8.15.3. In paragraph 221 of the Report of the Railway Accidents Committee, 1962, Part II, it has been suggested that another useful item of research in the Indian Railways is the impact of environment on the efficiency of the staff. Environmental problems like climate and food habits vary very widely in different parts of the country. It may not, therefore, be possible to centralise this item of research in one institution in the country. It will also have a bearing on the activities of the Psycho-Technical Cell and the work assessment cell referred to in the previous paragraphs.

8.15.4. As the research work suggested is varied, conditions widely differ in different parts of the country, and the operations undertaken by the Indian Railways are of considerable magnitude, it is felt that research work on the lines suggested should be organised on each Zonal Railway. There may be corresponding research cells under the Ministry of Railways, co-ordinating the activities of the cells in the different Zonal Railways. We suggest that Railways should go in for such varied research in greater magnitude, if the problems of tomorrow are to be anticipated and tackled with vision.

CHAPTER IX

SUMMARY OF FINDINGS, OBSERVATIONS AND RECOMMENDATIONS

1. Cause of accident :

The accident was caused by reception of No. 208 Down Express on signals on the main line of Yalvigi railway station, when that line was occupied by No. 215 Up Passenger. (Para 6.32)

2. Staff held responsible :

- (i) D. V. Patil, Assistant Station Master, Yalvigi, is guilty of grave dereliction and gross negligence in the discharge of his duty. He is responsible for the accident.
- (ii) Hanumantha Chikkappa, Gateman, Yalvigi, is guilty of gross negligence in the discharge of his duty. His failure to take proper action resulted in the accident.
- (iii) Siddappa Hanumappa, Pointsman, Yalvigi, is guilty of gross negligence in the discharge of his duty. Pulling the wrong lever in the Ground Lever Frame by him resulted in the accident. (Para 6.32)

3. The trend in respect of collisions and averted collisions on the Southern Railway during the last five years does not give room for complacency. Safety drive must be persistently kept up. There is a dire need for vigilance. (Para 7.1.2.)

4. Symptoms of a general decline in efficiency are observed. A few illustrative examples are given:

- (i) Surprise inspections carried out by the Safety Counsellor, Traffic, in January, 1968, disclose laxity in performance of duties. Conditions appear to have been deteriorating over a period of time, though efforts have been made to improve the position during the period of six months prior to the accident.
- (ii) Inspections and supervision by the TIs of the section were indifferent and of a routine nature. No regular inspection of Yalvigi was conducted by the TI after the formation of the South Central Railway till 11th January, 1968.
- (iii) Unauthorised absence by staff appears to be common. Belated punishment was imposed on the ASM held responsible for the accident, who had absented himself without authority for long periods and frequently during 1967. The Commission urges that machinery should be evolved to take swift and effective action in every case of unauthorised absence or infringement of medical rules. Staff should, however, have facility of availing authorised leave without delay.
- (iv) Unauthorised adjustment of rosters and leaving Hqrs. without permission of competent authority appear to be common. The Commission suggests that the position deserves to be examined and suitable action taken to eliminate such cases of indiscipline.
- (v) The TI of the section submitted a perfunctory report on complaints of indiscipline amongst Class IV staff at Yalvigi. The Commission emphasises need for building up a cadre of Senior Supervisors of high calibre and sense of duty. The TI of the section should be a live personality and should keep in constant touch with the conditions at stations so that any factor likely to affect safety is immediately attended to.

(Para 7.2)

5. Inspections at the level of Senior Supervisors should be purposeful. Calibre of supervisors should be improved. Machinery for following up lapses should be toned up so as to ensure swift and adequate action.

(Paras 7.3.1, 8.6.1 and 8.6.2)

6. There is need for speedy finalisation of disciplinary cases involving imposition of minor penalties also.

(Para 7.3.2)

7. Omissions and discrepancies in the Station Working Instructions of Yalvigi are pointed out. The Commission outlines three suggestions to improve matters.

(Paras 7.4.1 to 7.4.3)

8. The Commission observes that there is deterioration in the efficiency percentage of Birur-Hubli section control circuit after the Harihar-Hubli section was attached to the Mysore Division of the Southern Railway. While noting that action has been taken by the Railway to replace the existing physical line wire circuit by a carrier channel between Mysore and Birur, the Commission urges that matter should be kept continuously under review on all sections and modern methods of improved telecommunication provided quickly, as efficient means of communication are fundamental to railway transportation.

(Para 7.5)

9. Check of used tachocharts should be systematic to detect cases of overspeeding by drivers and guide them. Efficient maintenance of tachographs is essential. (Para 7.6)

10. Only one out of 63 Pointsmen on the Harihar-Hubli section had attended the Safety Camp. The Commission suggests that, while detailing staff for training in the Safety Camp, all sections should receive equal and adequate attention. (Para 7.7)

11. (i) Extant instructions on marshalling TLRs and anti-telescopic/steel-bodied coaches on trains carrying passengers were complied with in the trains involved in the collision. (Para 3.8)

(ii) Clearer instructions on marshalling TLRs and anti-telescopic/steel-bodied coaches on trains carrying passengers may be issued by the Ministry of Railways and Southern Railway. (Para 7.8.1)

(iii) The Commission, however, suggests that the Railway may examine why the authorised steel-bodied TLR was not put on No. 208 Express on 19th March, 1968 and why TLRs with brake compartments leading were not used in front in the trains involved in the collision. (Para 7.8.2)

12. In the light of telescopic action noticed in the two trains involved in the collision and vulnerability of wooden-bodied coaches in such collisions, there is need for expediting provision of steel-bodied/anti-telescopic TLRs to remove shortfall of 132 such coaches on the BG and 408 on the MG on the Southern Railway as on 31st March, 1968 in as short a time as possible. The Commission suggests top priority should be given for construction of steel-bodied/anti-telescopic TLRs in the Rolling Stock Programmes and programme of construction of other integral coaches may be suspended or curtailed to find capacity for the purpose. Wooden-bodied TLRs may be converted into Third Class coaches instead in due course. (Para 7.8.3)

13. The Railways should ensure that Passenger trains do not run without essential emergency equipment required to be provided.

(Para 7.9.1)

14. (i) The emergency Tool Box with the Guard should have implements suitable for use on steel-bodied coaches. (Para 7.9.2)

(ii) The Ministry of Railways may examine the possibility of providing minimum essential equipment required for rescue operations such as cutting tools, gas cutting equipment etc., on Medical Relief Vans, if necessary, in auxiliary coaches.

(Para 7.9.3)

15. Executive instructions should be issued that, in cases of serious accidents, names, addresses and statements of passengers inclined to co-operate should be recorded. (Para 7.10.1)

16. An enquiry-cum-information centre may be opened at the site of serious accidents to give correct information and make announcements regarding running of relief trains etc. (Para 7.10.2)

17. The accident at Yalvigi is due to grave dereliction of duty and gross carelessness. Surest safeguard against similar accidents is for staff to be constantly vigilant. After briefly tracing the evolution of the cumbersome and time-consuming procedure now followed by the Railways for

imposition of major penalties, the Commission emphasises the need for adoption of a simplified procedure for disciplinary action to be effective. For Railway staff to become duty conscious, enlightened, conscious and effective public opinion should assert itself. Means to achieve this objective are outlined in broad terms. The Commission recommends further that special rules may be framed under Article 309 of the Constitution for regulating discipline in staff connected with the safe running of trains and following a very much simplified but effective procedure in dealing with staff who err or who are inclined to err and endanger the safety of the passengers. Such railway staff may be deemed to constitute a class by themselves, because of the nature of their work. If the framing of such rules is not considered permissible under the Constitution, the Commission recommends that the categories of staff connected with the safe running of trains should be excluded from the purview of Article 311 of the Constitution. (Paras 8.1 and 8.5.1 to 8.5.7)

18. The Commission emphasises that careful training and conducting refresher courses, including safety camps, prove useful. (Para 8.4)

19. The Commission stresses the need for better administration of welfare activities to enable staff to develop duty consciousness and concentrate on their work. (Para 8.5.8)

20. The Commission emphasises the value of surprise inspections and suggests that such inspections should be intensified and inspecting staff should be provided with requisite funds for the purpose. (Para 8.6.3)

21. Provision of Standard III MAUQ Signalling at Yalvigi with a Central elevated cabin on the opposite side of the station building and SM's electrical slide control may be expedited. In the meantime, signal arm and light repeaters may be provided in the SM's office for the Down Home signals. (Para 8.7)

22. Track circuiting is the only fail-safe method of preventing signals being taken off for an occupied line. The Commission recommends that track circuiting of run through lines should be adopted at stations like Yalvigi, where visibility conditions are difficult. The Railways should draw up a list of wayside stations, where, on account of curves or other adverse conditions of visibility, it is desirable to provide track circuiting on run through lines. This list may be covered in stages, highest priority being given to stations on the main lines like Yalvigi. (Paras 8.3.1 and 8.3.2)

23. The Commission recommends that the possibility of using VHF trans-receivers as aids in preventing accidents should be explored. The idea should be developed and tried out and attempts made to overcome the shortcomings. Research in the use of versatile equipment like trans-receivers will prove very useful for other railway purposes also. (Para 8.9)

24. Limited realignment of stations, not involving heavy outlay, can be considered for improving visibility of approaching drivers. This principle may be kept in view, while laying new stations or remodelling existing ones to suit traffic needs. (Para 8.9)

25. The need for reducing the maximum permissible speed through stations like Yalvigi with difficult conditions of visibility may be considered as an interim measure of safety till track circuiting is provided. (Para 8.10)

26. The Commission suggests modification of certain procedures and rules for minimising the possibility of lapses on the part of station staff. The need for the retention of provision of Look-out Posts may be incidentally reviewed. (Para 8.11)

27. The Commission suggests safety drills at stations at regular intervals to ensure that the staff realise the value of disciplined working. Details are to be worked out by the Railways. (Para 8.12)

28. The Commission commends that the procedure followed on the Western and Central Railways for handing over tokens to run through trains on the main line at the outermost facing points may be implemented with advantage on all Railways. (Para 8.13)

29. The Commission suggests that it should be made obligatory for Guards and Drivers of first arriving trains to watch the aspect of signals for the crossing trains. A specific rule may be framed for the purpose. (Para 8.13)

30. The Commission emphasises the need for undertaking new **lines of** research by the RDSO. The Commission suggests in particular:

- (i) research into dissipation of kinetic energy in collisions and derailments;
- (ii) evolution of methods for quicker destruction of momentum and improving brake efficiency;
- (iii) obligatory studies by the various wings of the RDSO of the behaviour of members and materials used in the rolling stock involved in serious accidents, with a view to drawing appropriate lessons and changing designs of rolling stock and equipment. Regular systematic and comprehensive studies should be undertaken. The Ministry of Railways may issue instructions and evolve machinery for the purpose in view, and
- (iv) expeditious use of low alloy high tensile steel in coach construction in coordination with Messrs. Hindustan Steel Ltd., to improve the safety factor in their design. (Para 8.14.1)

31. The Commission recommends rapid expansion of the RDSO to meet the growing needs of the Railways. Efforts of the Railways to modernise and provide improved and safe transport should be backed by an adequately equipped and greatly expanded research organisation. (Para 8.14.2)

32. The Commission recommends creation of separate research cells on each Zonal Railway for undertaking (i) Psycho-technical studies, (ii) Work-assessment studies, and (iii) environmental research. Similar cells in the Ministry of Railways may coordinate the activities of the cells in the various Zonal Railways. There is need for urgent and large scale research in such varied fields to tackle the growing problems in the Railways. (Paras 8.15.1 to 8.15.4)

CHAPTER X

ACKNOWLEDGMENTS

10.1. We are thankful to the Government of Mysore for permitting certain staff of the High Court of Mysore being taken on deputation by

the Commission, and assisting us in other administrative matters. The Commission expresses its thanks to the Chief Secretary for giving his personal attention to the problems referred to him.

10.2. We express our gratitude to the Hon'ble the Chief Justice of the High Court of Mysore for placing Court Hall No. 10 in the High Court Building and its chambers at our disposal for holding the inquiry and running the office of the Commission. We are also grateful to him for readily sparing the services of several staff of the High Court of Mysore for working with the Commission.

10.3. The Commission thanks the Registrar of the High Court of Mysore, his officers and staff for their valued co-operation and the arrangements made in Court Hall No. 10 and the chambers.

10.4. We have received great assistance from the Southern Railway authorities. They have furnished information promptly as and when they were called upon to do so by the Commission.

10.5.1. It was extremely good of Sri V. L. Narasimha Moorthy, Advocate, Bangalore, for volunteering to assist the Commission in the discharge of its functions. He has attended throughout the proceedings of the open inquiry and the Commission is grateful to him for sparing his valuable time and services.

10.5.2. The Commission is also happy to record that it received co-operation from all the counsels who participated in the work of the Commission. The Commission is thankful to them.

10.6. We are thankful to those members of the public who responded to our summons and gave evidence before the Commission in spite of personal inconvenience. Our thanks are due to several others who have assisted the Commission in giving valuable suggestions.

10.7. We acknowledge our gratitude to the several Institutions which we visited in connection with the work of the Commission and in particular to the Integral Coach Factory, Madras, Messrs. Bharat Earth Movers Ltd., Bangalore, the Indian Institute of Science, Bangalore, Messrs. The International Instruments (P) Ltd., Bangalore, and Messrs. Bharat Electronics Ltd., Bangalore. We have had valuable co-operation from the Research, Design and Standards Organisation, Lucknow, in clarifying certain issues raised before the Commission.

10.8. The Commission is thankful to the representatives of the Press for publishing detailed accounts of the depositions of the witnesses from day to day and rendering useful assistance to the public and the Commission.

10.9. We wish to place on record the excellent work done by the staff of the Commission drawn from the High Court of Mysore and from the Southern Railway, who ungrudgingly bore a heavy burden and met the exacting demands of the Commission regardless of personal inconvenience.

10.10. We have great pleasure to record that we have received unstinted and valuable co-operation from Sri S. G. Raman, Secretary to the Commission, in every aspect of its work. His work has been of an arduous and exacting nature. But for his untiring and continued industry, prompt and quick action and unstinted devotion to duty, it would have been indeed difficult to get through the work of the Commission. The Commission acknowledges its appreciation of his services.

(Sd.) B. K. P. SINHA,
Member,
30-6-68

(Sd.) K. R. GOPIVALLABHA IYENGAR,
Chairman,
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(Sd.) H. D. AWASTY,
Member,
30-6-68

[No. 68/Safety/1/71]
C. S. PARAMESWARAN, Secy.
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